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# SMOS

## SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE

1

STATION:	#23239	Alameda, CA
PERIOD:	DAILY HOURLY	3/45-12/96 1/55-12/96
JOB NO.	TASK	RN3828B
		DATE October 2, 1988



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  This data report consists of a six part statistical summary of surface weather observations. The six parts are: Part A - Weather Conditions/Atmospheric Phenomena, Part B - Precipitation/Snowfall/Snow Depth, Part C - Surface Winds, Part D - Ceiling versus Visibility/Sky Cover, Part E - Psychrometric Summaries, Part F - Station Pressure/Sea Level Pressure.		

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From: Officer in Charge, Naval Oceanography Command Detachment Asheville

Subj: SUMMARY OF METEOROLOGICAL OBSERVATIONS, SURFACE (SMOS)

1. Discussion. This edition of the SMOS was produced utilizing a revised software package. The product has been expanded to include station climatic summary tables and is considered a stand alone publication. This update includes the period of record (POR) through 1986 for all hourly and daily data. Our revised production methodology incorporates two computerized editing phases after the initial processing stage and a manual review and intervention of suspect data prior to the print phase. Every effort has been made to produce at least a 99.9 percent data perfect product based on the stations observation data. We have switched to a direct computer printout on standard computer paper instead of the previous print format. This results in a 85 percent print cost savings over our old specialized print format.

2. Weather Conditions. This summary is a percentage frequency occurrence of various atmospheric phenomena and obstructions to vision, derived from 3-hourly observations, and is presented in two tables as follows:

**Table 13** By month, all years combined, by standard 3-hour groups and all hours combined.

**Table 14** By month and annual, all hours and years combined, by wind direction.

Occurrences of the various phenomena included in each category on the forms are listed below:

- a. Thunderstorms - All reported occurrences of thunderstorm, tornado, and waterspout.
- b. Rain and/or drizzle - All liquid precipitation, falling to the ground, not freezing.
- c. Freezing rain and/or freezing drizzle (glaze) - Precipitation falling in liquid form, but freezing on contact with an unheated surface.
- d. Snow and/or sleet - Included are snow, sleet, snow pellets (soft hail), snow grains, and ice crystals.
- e. Hail - Occurrences of hail and small hail are included.
- f. Percentage of observations with precipitation - Included in this category are the observations when one or more of the above phenomena occurred. Since more than one type of precipitation may be reported in the same observation, the sums of the individual categories may exceed the total columns.
- g. Fog - Included are fog, ice fog, and ground fog.
- h. Smoke and/or haze - Occurrences of smoke, haze, or combinations of smoke and haze are included.
- i. Blowing snow - Occurrences of blowing snow also drifting snow when reported from non-WBAN sources.
- j. Dust and/or sand - Included are blowing dust, blowing sand, and dust.
- k. Blowing spray - This item if reported, is not shown in a separate category on this table but is included in the computation Percentage of Observations with Obstructions to Vision.

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A-1



1. Percentage of observations with obstructions to vision - Included in this category are the observations when one or more of the above obstructions to vision occurred. Since more than one type of obstruction may be reported in the same observation, the sums of the individual categories may exceed the percentage total columns. Also, although precipitation may reduce visibility, it is not considered an obstruction to vision for purposes of this summary; therefore, the percentage total of obstructions to vision need not reflect the total observations with reduced visibility.

**NOTE:** The total number of observations may vary among tables within the same month and period. Percentages may not always equal 100.0 due to rounding practices.

- Atmospheric Phenomena** **Table 36:** This summary is a presentation of the percentage of days with occurrences of various atmospheric phenomena. These data are obtained from all recorded information on the reporting forms and combined into a daily observation.

a. The descriptions of the phenomena in the Weather Conditions Summary above also apply to categories summarized in these tabulations. However, it should be noted that in this summary the headed "% OF OBS WITH PRECIP." and "% OF OBS WITH OBST TO VISION" show the percentage of days rather than one type of precipitation or more than one type of observation. Since more than one type of precipitation may occur in the same daily observation, the sum of the values in the individual columns may not equal the total column.

b. This presentation is by month with annual totals, and is prepared with all years combined.

NOTE: A day with rain and/or drizzle was not separately reported in WBAN data prior to January 1949. Therefore percentages in this column are restricted to the period January 1949 and later.

A day with dust and/or sand was punched and included in this summary only when visibility was less than  $\frac{5}{8}$  mile.

a. Tables 8, 9, and 10 provide for each element separately the percentage frequency of various daily amounts, by month and annual, all years combined. The percentage of days with measurable amounts is also monthly and annually. Also shown for the precipitation and snowfall tables, are the monthly mean amounts (sum of monthly mean amounts), and the extreme monthly amounts (greatest and least).

b. Table 21 for each element presents the extreme daily amounts by individual month and day for the entire period of record available.

c. Tables 23, 24, and 25 provide for each element separately individual year and month extreme daily amounts and the means and standard deviations for each month and annual for all months combined.

NOTE 1: Snow depth was recorded and plotted at stations. The periods and hours

From beginning of record thru Jun 52 - Snow depth at 0030 UTC  
Jul 52 - May 57 Snow depth at 1230 UTC  
Jun 57 - present Snow depth at 0000 UTC

NOTE 2: Hail was included in snowfall occurrence in the summary of the day observation prior to Jan 1956, and after Dec 1970.

## 5. Surface Winds.

a. Extreme Values - Peak Gusts Table 27: Derived from daily observations and presented by individual year and month for the entire period of record available. Speeds are presented in knots, while directions are given in 16 compass points from the beginning of record through 1963, and in tens of degrees starting in January 1964. When 90% or more of the daily observations of peak gust wind data are available for a month, the extreme is selected and printed. These values are then used to compute means and standard deviations for the entire period. Every month of a year must have valid observations present before the ALL MONTHS value is selected for that year. Means and standard deviations are computed when four or more values are present for any column. A supplementary list of Peak Gusts by year-month with <90% observations reported is also provided.

b. Bivariate Percentage frequency tabulations: Derived from hourly observations, these tabulations are a percentage frequency of wind directions to 16 compass points and calm by wind speeds (knots) in increments of Beaufort classifications. Percentages are shown by both direction and speed, and in addition the mean wind speed for each direction. A separate category is provided on the form for variable winds, which are reported in some data sources. In these data where light and variable winds are reported with no directions but with speeds given, the speeds will be summarized in the appropriate groups opposite the column headed VARBL.

Table 1 contains three presentations prepared for all surface winds included, and for all years combined as follows:

- (a) By month - by standard 3-hour groups
- (b) By month - all hours combined
- (c) Annual - all hours combined

6. Ceiling Versus Visibility Table 2. This summary is a bivariate percentage frequency distribution by classes of ceiling from zero to equal to or greater than 20,000 feet and as a separate class 'no ceiling' versus visibility in 16 classes from zero to equal to or greater than 10 miles. Data are derived from 3-hourly observations, and three sets of tables are presented as follows:

- (a) By Month - by standard 3-hour groups
- (b) By Month - all years and all hours combined
- (c) Annual - all years and all hours combined

Due to the cumulative nature of this presentation, it is possible to determine the percentage frequency of occurrence for any given limit of ceiling or visibility separately, or in combination of ceiling and visibility. The totals progress to the right and downward. Ceiling may be determined independently by referring to totals in the extreme right hand column. Also, visibility may be determined independently by reference to the horizontal row of totals at the bottom of the page. The percentage frequency for which the station was meeting or exceeding any given set of minimal may be determined from the figure at the intersection of the appropriate ceiling column and visibility row. Several examples in the use of these tables are shown on the following pages.

Beginning in July 1948 for U. S. Air Force stations and January 1949 for National Weather Service (NWS) and U.S. Navy stations the 'no ceiling' category consists of observations with less than 6/10 total sky cover and those cases where total sky cover is 6/10 or more, but not more than 1/2 of the sky cover is opaque.

#### EXAMPLES FOR USE OF CEILING VERSUS VISIBILITY TABLES IN THIS TABULATION

CEILING (FEET)	VISIBILITY (STATUTE MILES)									
	$\geq 10$	$\geq 4$	$\geq 5$	$\geq 4$	$\geq 3$	$\geq 2\frac{1}{2}$	$\geq 2$	$\geq 1\frac{1}{4}$	$\geq 1$	$\geq \frac{1}{4}$
$\geq$ NO CEILING										
$\geq 1800$										
$\geq 1500$										
$\geq 1200$										
$\geq 1000$										
$\geq 900$										
$\geq 800$										
$\geq 700$										
$\geq 600$										
$\geq 500$										
$\geq 400$										
$\geq 300$										
$\geq 200$										
$\geq 100$										
$\geq 0$										
	95.4									
		96.9								
			98.3							
				100.0						

EXAMPLE # 1: Read ceiling values independently of visibility under column at right headed  $> 0$ . For instance, from the table:

$$\begin{aligned} \text{Ceiling } &\geq 1500 \text{ feet} = 92.6\% \\ \text{Ceiling } &\geq 500 \text{ feet} = 98.1\% \end{aligned}$$

EXAMPLE # 2: Read visibilities independently of ceilings on bottom line opposite  $> 0$ . From the tables:

$$\begin{aligned} \text{Visibility } &\geq 3 \text{ miles} = 95.4\% \\ \text{Visibility } &\geq 2 \text{ miles} = 96.9\% \\ \text{Visibility } &\geq 1 \text{ mile} = 98.3\% \end{aligned}$$

EXAMPLE # 3: To obtain combinations of ceiling with visibility, read figure at intersection of the two categories; i.e.: Ceiling  $\geq$  1500 feet with visibility  $\geq 3$  miles = 91.0%.

EXAMPLE # 4: Values below minimums stated in the table may be obtained by subtracting the value given in the table from 100%. Thus, to obtain the percentage of observations with ceiling  $<$  1500 feet and/or visibility  $<$  3 miles, subtract the value read from the table at the intersection, which is 91.0, from 100.0. The answer 9.0 is the percentage of observations with ceiling  $<$  1500 feet and/or visibility  $<$  3 miles.

Likewise, the percentage of observations with ceiling  $<$  500 feet and/or visibility  $<$  1 mile is 2.6, obtained by subtracting 97.4 from 100.0.

EXAMPLE # 5: To find the percentage of observations falling within the two categories given in example above, subtract the value read from the table for the first set of limits from the value in the table for the second set of limits. The difference will be the percentage of observations meeting the lower set of limits, but not meeting the higher set of limits.

The value 91.0 read from the table at the intersection of  $\geq 1500$  feet with  $\geq 3$  miles, subtracted from 97.4 read from the table at the intersection of  $> 500$  feet with  $> 1$  mile is equal to 6.4%. Thus: 6.4 percent of the observations meet the criteria: ceiling  $\geq 500$  feet with visibility  $\geq 1$  mile, but  $< 3$  miles; or ceiling  $> 500$  feet, but  $< 1500$  feet with visibility  $> 1$  miles.

Since these tabulations are prepared in several ways including by month, by 3-hour groups it is possible to determine diurnal variations of ceiling and visibility limits as well as probabilities of various ceiling-visiblity combinations.

7. Sky Cover. Table 11. This summary is prepared from 3-hourly observations and is a percentage frequency distribution of total sky cover (see Note 3) and total number of observations. It is presented as follows:  
By month and annual - by standard 3-hour groups, and all hours combined.

NOTE: #1: Sky cover (total cloud amount) was not reported by U.S. Services until mid 1945. Data, when available, were punched for Air Force stations beginning in 1946, but were not available for Navy stations until 1948 or 1949. NWS stations recorded total cloud amount in remarks beginning sometime in 1945, but few stations have punched data prior to 1948. This summary will, of course, be limited to period of available data.

NOTE: #2: Some data sources used for this summary report cloud amounts in oktas. These have been converted to tenths prior to summarizing, and notation is made on the form to indicate that data were originally reported in oktas. The manner of conversion is given below:

OKTAS	TENTHS
0	0
1	1
2	3
3	4
4	5
5	6
6	8
7	9
8 (or obscured)	10

NOTE: #3: Beginning in 1981 the symbols of Clear, Scattered, Broken, Overcast, and Obscured were used as input for the Total Sky Cover. Following are the conversions:

- 0/10 equates to clear
- 1/10 to 5/10 equates to scattered
- 6/10 to 9/10 equates to broken
- 10/10 equates to overcast

#### 8. Psychrometric Summaries.

- a. Cumulative percentage frequency of occurrence - derived from daily observations and presented by month and annual for all years combined. These tabulations provide the cumulative percentage frequency to tenths of temperature by 5-degree Fahrenheit increments, plus mean temperature, standard deviation, and total number of observations in three separate tables as follows:

Table 5 Daily maximum temperature

Table 6 Daily minimum temperature

Table 7 Daily mean temperature

b. Daily Average/Extreme Temperatures. Table 29 derived observations and presented for each month and day for entire period of record available are average temperature, average and extreme maximum temperature, average and extreme minimum.

c. Extreme values - derived from daily observations with extreme value given for each year and month of record available. Extremes are provided for a month if all days for a month contain valid observations. All months for a year must have valid extremes before the ANNUAL value is selected for that year. Means and standard of daily extreme temperatures are prepared:

Table 30 Extreme maximum temperature

Table 31 Extreme minimum temperature

NOTE: A supplementary list also provides extreme temperatures when less than a full month is reported.

d. Bivariate percentage frequency distribution and computations of dry-bulb versus wet-bulb temperature  
Table 3. This tabulation is derived from 3-hourly observations and is presented by month and annual, all hours and all years combined. The following information is provided:

(1) The main body of the summary consists of a bivariate percentage frequency distribution of wet-bulb depression is 17 classes spread horizontally; by 2-degree intervals of dry-bulb temperature vertically. Also provided for each dry-bulb temperature interval is the total number of observations with dry-bulb and wet-bulb temperature combined; and again for dry-bulb, wet-bulb, and dew-point temperatures separately. Total observations for these four items is also provided in two lines at end of each tabulation table.

NOTE: A percentage frequency in this table of ".0" represents one or more occurrences amounting to less than .05 percent.

(2) Statistical data for the individual elements of relative humidity, dry-bulb, wet-bulb, and dew-point temperatures are shown in the section at the bottom left of each page. These consist of the sum of squares ( $\Sigma X^2$ ), sums of values ( $\Sigma X$ ), means ( $X$ ), and standard deviations ( $\sigma X$ ). The number of observations used in the computations for each element is also shown.

(3) At the lower right of each page Table 40 gives the mean number of hours of occurrence for six ranges of dry-bulb, wet-bulb, and dew-point temperatures, and total number of hours possible in the period represented. Mean number of hours is shown to tenths and indicates mean number of hours per year in the annual summary, or mean number of hours per month in the tabulations by month.

NOTE: Wet-bulb temperature usually was not reported prior to 1946. Relative humidity usually was not reported prior to 1949, nor subsequent to June 1958; and was computed by machine methods for observations recorded during these periods. All values of dew-point temperature and relative humidity are with respect to water, unless otherwise indicated.

d. Means and standard deviations. These tabulations are derived from hourly observations and present the mean, standard deviation, and total number of observations for the eight standard 3-hour groups, by month and annual and again at the bottom for all hours combined. Records for all years available are combined. Tables are prepared for the following:

Table 15 Dry-bulb temperature

Table 16 Wet-bulb temperature

Table 17 Dew-point temperature

e. Cumulative percentage frequency of occurrence of relative humidity Table 12. This summary is derived from hourly observations and presents the cumulative percentage frequency of occurrence of relative humidity by increments of 10% classes, plus the mean relative humidity and total number of observations in two tables.

By Month and Annual - by standard 3-hour groups, and all hours combined with the hour groups being the vertical argument. All years are combined for this summary.

f. Percentage frequency of occurrence of dry-bulb temperature versus wind direction Table 4. This tabulation is derived from hourly observations and is presented by month and annual, all hours and years combined. The main body of the summary consists of dry bulb temperatures spread vertically in five degree increments and horizontally by eight wind directions (plus calm).

g. Pressure Summary. Two tables giving the means, standard deviations, and total number of observations of station pressure and sea-level pressure by month and annual for the local hourly observations corresponding to the eight 3-hourly synoptic times UTC. The same computations are also provided at the bottom of the page for all hours combined. All years of data available are combined in both of these tables.

Table 18 Station pressure in inches of mercury

Table 19 Sea-level pressure in millibars

Provided below is a scale to convert station pressure values in inches of mercury or millibars to pressure latitude in 1000's of feet. This scale is an enlarged model of the pressure latitude scale in the Smithsonian Meteorological Tables.

	P R E S S U R E	A L T I T U D E (1 0 0 0' S F T)
11	10 9 8 7 6 5 4	3 2 1 0 0 -1
20 (IN HG)	21 22 23 24 25 26 27	28 29 30 31 (IN HG)
(IN)	700 750 800 850 900 950 1000	1050 (IN)
11	10 9 8 7 6 5 4	3 2 1 0 0 -1
	P R E S S U R E	A L T I T U D E (1 0 0 0' S F T)

*M. L. DICKENSON*

\*\*\*\*\* TABULATION INDEXES BY NUMBER \*\*\*\*\*

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1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)												TOTAL	MEAN
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	> 56		
N	3.7	5.1	3.1	.9	.0	.0	.0	.0	.0	.0	.0	.0	12.9	5.5
NNE	1.3	1.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.5	4.1
NE	1.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	5.7
ENE	.9	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	3.5
E	1.4	2.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.8	4.8
SE	1.7	3.7	1.9	.6	.3	.1	.0	.0	.0	.0	.0	.0	8.4	6.4
SW	1.5	3.9	1.5	1.7	.6	.0	.1	.0	.0	.0	.0	.0	9.6	8.1
SSE	.6	1.3	.6	1.0	.4	.4	.0	.1	.0	.0	.0	.0	4.4	10.6
S	.8	1.1	1.6	1.4	.2	.2	.0	.0	.0	.0	.0	.0	5.3	9.0
SSW	.2	.7	.3	.1	.2	.1	.0	.0	.0	.0	.0	.0	1.6	8.9
SW	.4	.5	.3	.2	.2	.1	.0	.0	.0	.0	.0	.0	1.7	8.5
WSW	.2	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.5	6.2
W	.3	.8	.5	.7	.0	.0	.1	.0	.0	.0	.0	.0	2.4	8.6
WNW	.7	1.1	.6	.5	.3	.3	.0	.0	.0	.0	.0	.0	3.2	7.4
NNW	1.6	2.1	1.3	.6	.2	.1	.0	.0	.0	.0	.0	.0	6.4	6.6
NNNW	1.8	5.9	3.7	1.5	.0	.0	.0	.0	.0	.0	.0	.0	12.9	6.4
VAR	.5	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.4	0.0
ALL	18.1	33.1	17.5	10.1	2.6	1.0	.2	.1	.0	.0	.0	.0	100.0	5.6

NOTES : \* = PERCENT < .05  
TOTAL NO. OF OES : 991

## 1 - SURFACE WINDS

023259 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LNG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HGT : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
DIR.	N	3.7	6.5	3.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	5.6
	NNE	1.0	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.6
	NE	0.7	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.9
	ENE	0.6	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	5.0
	E	2.7	2.3	0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.5
	ESE	2.2	3.6	2.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.7	5.7
	SE	1.8	3.3	2.5	1.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	10.4	8.3
	SSE	1.1	1.7	1.5	0.8	0.6	0.3	0.1	0.0	0.0	0.0	0.0	6.1	8.9
	S	0.5	1.6	0.9	0.8	0.5	0.2	0.1	0.0	0.0	0.0	0.0	4.6	9.4
	SSW	0.7	0.5	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.5	10.1
	S	1.4	4.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	4.8
	WSW	0.3	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	8.1
	W	0.4	0.4	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.1
	NNW	0.6	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.3	6.7
	NW	0.0	1.6	1.3	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	4.5	6.7
	NNW	1.4	5.3	3.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	11.0	6.4
	VAR	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
	CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.4	0.0
ALL	18.6	32.2	18.9	7.9	2.8	2.9	0.3	0.0	0.0	0.0	0.0	0.0	100.0	5.4

NOTES : \* = PERCENT < .05

TOTAL NO. OF OES : 992

## 1 - SURFACE WIND'S

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL 2=561	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	2.8	6.4	3.0	4	.1	.0	.0	.0	.0	.0	.0	13.7
NNNE	1.4	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.9
NE	1.1	.4	.3	.0	.1	.0	.0	.0	.0	.0	.0	1.9
ENE	.7	.6	.8	.0	.0	.0	.0	.0	.0	.0	.0	2.1
E	2.4	1.8	.4	.2	.0	.0	.0	.0	.0	.0	.0	4.8
ESE	2.2	3.1	2.4	.9	.1	.0	.0	.0	.0	.0	.0	8.8
SE	1.9	3.7	3.0	2.3	1.1	.3	.0	.1	.0	.0	.0	12.5
SSE	1.0	2.1	.9	.8	.6	.2	.1	.0	.0	.0	.0	5.7
S	1.3	2.0	.7	.4	.2	.1	.0	.0	.0	.0	.0	4.7
SSW	.6	.7	.3	.3	.6	.1	.0	.0	.0	.0	.0	2.6
SW	.2	.6	.2	.4	.2	.0	.0	.0	.0	.0	.0	1.6
WSW	.2	.5	.2	.4	.0	.1	.0	.0	.0	.0	.0	1.4
W	.6	.4	.5	.4	.1	.1	.0	.0	.0	.0	.0	2.1
NNW	.4	.9	.2	.7	.0	.0	.0	.0	.0	.0	.0	2.2
NW	1.8	1.8	1.0	.9	.2	.0	.0	.0	.0	.0	.0	5.7
NNW	1.5	3.4	2.5	.7	.0	.0	.0	.0	.0	.0	.0	8.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	21.3	29.7	16.7	9.0	3.3	.9	.1	.1	.0	.0	.0	18.9
ALL												100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>56	TOTAL	MEAN
	1	2	3	4	5	6			
N	1.9	3.3	3.3	1.3	.1	.0	.0	.0	10.0
NNE	.3	.7	.3	.0	.0	.0	.0	.0	1.3
NE	.3	.8	.2	.1	.0	.0	.0	.0	5.2
ENE	.4	.5	.5	.0	.0	.0	.0	.0	5.3
E	.4	.9	.8	.2	.1	.0	.0	.0	5.4
ESE	1.0	1.7	1.1	.4	.3	.0	.0	.0	2.4
SE	1.6	4.3	4.4	2.4	.6	.4	.0	.0	7.0
SSE	1.9	3.5	1.8	1.2	.9	.4	.0	.0	14.0
S	3.5	3.8	.8	.2	.2	.0	.0	.0	8.3
SSW	1.3	1.0	.1	.3	.2	.0	.0	.0	5.1
SW	.7	.5	.1	.1	.4	.0	.0	.0	5.5
WSW	1.1	.3	.2	.5	.2	.0	.0	.0	2.1
W	1.2	.9	.7	.4	.1	.0	.0	.0	7.7
WNW	1.0	1.4	.8	.6	.0	.0	.0	.0	3.3
NNW	1.5	3.1	1.6	.7	.3	.0	.0	.0	6.4
NNW	1.5	4.4	4.0	1.3	.1	.0	.0	.0	7.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	19.8	31.4	20.9	10.1	3.5	1.1	.2	.0	13.1
								.0	0.0
								.0	100.0
								.0	6.1

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA - CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1500 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7-10	11-14	17-21	22-27	28-33	34-40	41-47	>=50	
N	.8	1.4	1.7	.9	.2	.1	.0	.0	.0	.0	.0	5.1
NN E	.0	.2	.3	.3	.0	.0	.0	.0	.0	.0	.0	0.8
NE	.2	1.2	.6	.1	.0	.0	.0	.0	.0	.0	.0	2.1
ENE	.0	.3	.6	.3	.0	.0	.0	.0	.0	.0	.0	1.2
E	.4	.7	.1	.3	.0	.0	.0	.0	.0	.0	.0	1.5
ESE	.3	.5	.2	.6	.1	.0	.0	.0	.0	.0	.0	1.7
SE	.9	1.7	2.2	1.8	.4	.7	.1	.0	.0	.0	.0	7.9
SSE	1.3	2.5	1.9	.8	.6	.3	.0	.0	.0	.0	.0	10.6
S	2.4	4.8	1.5	1.0	.5	.4	.1	.0	.0	.0	.0	7.5
SSW	2.1	2.4	.6	.1	.3	.1	.0	.0	.0	.0	.0	10.8
SW	.5	1.5	.4	.5	.3	.0	.0	.0	.0	.0	.0	5.6
WSW	1.3	2.2	.4	.2	.2	.1	.0	.0	.0	.0	.0	3.2
W	1.9	4.7	1.9	.8	.4	.0	.0	.0	.0	.0	.0	6.0
WNW	.9	2.8	1.5	.7	.1	.0	.0	.0	.0	.0	.0	9.8
NNW	.7	5.1	6.6	2.1	.1	.0	.0	.0	.0	.0	.0	6.5
NNW	1.3	3.8	5.9	1.4	.2	.0	.0	.0	.0	.0	.0	14.6
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLW	0.0	0.0	26.5	12.0	3.4	1.7	.2	.0	.0	.0	0.0	4.9
ALL	15.1	36.1	26.5	12.0	3.4	1.7	.2	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR. 16 PT.	SPEED (KNOTS)						>=56 1	TOTAL 2	MEAN WIND SPEED
	1 - 3	4 - 6	7-10	11-16	17-21	22-27			
N	4.5	2.4	1.3	.8	.3	.1	.0	.0	5.4
NNE	.2	.6	.3	.2	.1	.0	.0	.0	1.4
NE	.2	.6	.6	.3	.1	.0	.0	.0	8.4
ENE	.4	.4	.8	.2	.0	.0	.0	.0	1.8
E	.4	.3	.2	.3	.0	.0	.0	.0	7.7
EESE	.2	.8	.5	.5	.0	.0	.0	.0	1.8
SE	.2	.6	1.4	.7	.5	.4	.0	.0	6.6
SSE	.8	1.0	1.2	1.2	.8	.1	.0	.0	2.1
S	2.2	2.2	1.8	1.4	.4	.2	.1	.0	8.4
SSW	1.6	1.3	.4	.5	.2	.1	.0	.0	3.8
SW	1.7	.8	.8	.8	.3	.1	.0	.0	11.6
WSW	.9	1.0	.7	.7	.2	.0	.0	.0	5.2
W	1.5	3.1	2.4	1.5	.3	.0	.0	.0	10.1
WNW	.6	3.5	3.9	1.4	.2	.0	.0	.0	8.5
NNW	1.1	6.9	6.7	1.5	.2	.0	.0	.0	8.2
NNW	1.1	4.8	6.0	2.3	.0	.1	.0	.0	6.6
WNE	.0	.0	.0	.0	.0	.0	.0	.0	4.1
CLW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
ALL	13.7	30.0	29.6	14.4	3.6	1.1	.3	.1	7.3

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	> 56	
N	3.5	3.8	1.2	.4	.1	.0	.0	.0	.0	.0	.0	9.1
NNE	1.0	1.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	3.0
NE	1.2	.8	.0	.1	.0	.0	.0	.0	.0	.0	.0	2.1
ENE	.6	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.7
E	1.1	2.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	4.8
ESE	.4	1.0	1.0	.4	.0	.1	.0	.0	.0	.0	.0	3.5
SE	.9	1.4	1.4	.5	.7	.3	.0	.0	.0	.0	.0	7.8
SSE	1.0	1.0	.6	1.4	.4	.2	.1	.0	.0	.0	.0	5.2
S	1.2	.8	1.7	1.7	.5	.2	.0	.0	.0	.0	.0	10.1
SSW	.7	.4	.2	.6	.1	.2	.0	.0	.0	.0	.0	1.8
SW	.4	.5	.2	.3	.2	.2	.0	.0	.0	.0	.0	2.2
WSW	.6	1.2	.6	.5	.1	.0	.0	.0	.0	.0	.0	7.5
W	.6	2.7	1.5	1.2	.0	.0	.0	.0	.0	.0	.0	7.0
WNW	.7	2.1	1.3	.8	.1	.2	.0	.0	.0	.0	.0	5.2
NNW	1.5	6.6	4.8	1.2	.1	.0	.0	.0	.0	.0	.0	14.2
NNN	2.4	7.4	4.2	.6	.1	.0	.0	.0	.0	.0	.0	14.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	17.5	34.0	20.3	10.2	2.4	1.5	.1	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL %	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56	
N	4.5	7.7	2.9	.6	.1	.0	.0	.0	.0	.0	.0	15.8
NNE	.6	1.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	5.0
NE	.3	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.2
ENE	.1	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	4.4
E	1.6	2.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	5.0
ESE	1.2	2.7	1.2	.2	.1	.0	.0	.0	.0	.0	.0	8
SE	1.0	3.6	1.7	1.6	.8	.2	.0	.0	.0	.0	.0	5.5
SSE	.5	1.0	1.3	1.1	.7	.2	.0	.0	.0	.0	.0	4.8
S	.6	1.0	.6	.9	.5	.0	.1	.0	.0	.0	.0	10.3
SSW	.4	.2	.4	.8	.0	.0	.0	.0	.0	.0	.0	3.9
SW	.6	.4	.6	.2	.1	.2	.0	.0	.0	.0	.0	2.7
WSW	.3	.5	.4	.1	.0	.1	.0	.0	.0	.0	.0	2.1
W	1.5	.5	1.1	.6	.3	.0	.0	.0	.0	.0	.0	6.9
NNW	.6	1.2	.6	.5	.1	.0	.0	.0	.0	.0	.0	4.0
NW	1.2	4.2	2.5	.6	.3	.0	.0	.0	.0	.0	.0	6.8
NNW	3.1	6.3	4.7	.9	.0	.0	.0	.0	.0	.0	.0	7.1
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	18.2	34.0	19.7	8.3	3.0	.9	.1	.0	.0	.0	100.0	5.5

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 992

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
	DIR.	1	-	1	1	-	1	1	1	1	1	1	1	1	1	1	%	WIND SPEED
N	2.8	4.6	2.5	.8	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.8	5.8	
NNE	.7	1.1	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.0	
NE	.6	.8	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	5.4	
ENE	.5	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.5	
E	1.3	1.6	.6	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	5.0	
ESE	1.2	2.2	1.3	.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	6.4	
SE	1.2	2.8	2.3	1.6	.7	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	9.0	9.0	
SSE	1.0	1.8	1.2	1.0	.6	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	6.0	9.2	
S	1.6	2.2	1.2	1.0	.4	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	6.6	7.8	
SSW	.8	.9	.3	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	7.4	
SW	.6	.7	.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	7.9	
WSW	.6	.9	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	7.0	
W	1.0	1.7	1.2	.8	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	7.1	
NNW	.7	1.7	1.2	.7	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	7.2	
NW	1.3	3.9	3.2	1.0	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.7	6.9	
NNW	1.8	5.2	4.3	1.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	6.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	
CLM	0.0	32.6	21.2	10.2	3.1	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	13.6	0.0	
ALL	17.8	32.6	21.2	10.2	3.1	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	100.0	6.1	

TOTAL NO. OF OBS : 7935

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=1/2	>=5/8	>=1/2	>=5/16	>=1/4	>=1/8
UNLIMIT	28.8	46.5	49.3	53.0	55.4	56.3	57.3	57.6	57.6	57.6	57.7	57.7	57.8	57.9	57.9	58.0	58.0
>=20000	29.3	48.2	51.3	55.1	57.6	58.5	59.5	59.8	59.8	59.8	59.9	59.9	60.0	60.0	60.1	60.1	60.3
>=14000	29.4	48.4	51.5	55.4	57.8	58.7	59.7	60.0	60.0	60.1	60.1	60.2	60.2	60.3	60.3	60.6	60.6
>=16000	29.5	48.6	51.8	55.8	58.2	59.1	60.1	60.4	60.4	60.6	60.6	60.7	60.7	60.8	61.0	61.0	61.0
>=14000	29.8	49.5	52.7	56.8	59.2	60.2	61.3	61.6	61.6	61.6	61.7	61.7	61.8	61.9	62.1	62.1	62.1
>=12000	30.9	51.2	54.3	58.4	61.0	62.0	63.0	63.3	63.3	63.3	63.4	63.4	63.5	63.5	63.6	63.8	63.8
>=10000	31.8	52.8	56.3	60.3	62.9	63.9	64.9	65.2	65.2	65.3	65.4	65.4	65.5	65.5	65.6	65.9	65.9
>= 9000	32.2	53.5	57.0	61.1	63.6	64.6	65.6	66.0	66.0	66.1	66.2	66.3	66.3	66.4	66.4	66.6	66.6
>= 8000	32.5	54.0	57.6	61.8	64.4	65.5	66.6	66.9	66.9	67.0	67.1	67.1	67.2	67.2	67.3	67.5	67.5
>= 7000	32.7	54.5	58.2	62.5	65.2	66.4	67.4	67.7	67.7	67.8	67.9	67.9	68.0	68.0	68.1	68.3	68.3
>= 6000	33.6	55.7	59.3	63.6	66.4	67.5	68.5	68.8	68.8	68.9	69.0	69.0	69.1	69.1	69.2	69.4	69.4
>= 5000	34.5	57.2	61.0	65.3	68.3	69.4	70.4	70.7	70.7	70.8	70.9	70.9	71.0	71.0	71.2	71.4	71.4
>= 4500	34.8	57.9	61.8	66.2	69.3	70.4	71.5	71.8	71.8	71.9	72.0	72.0	72.1	72.1	72.2	72.4	72.4
>= 4000	35.2	58.8	62.7	67.7	70.4	71.6	72.6	72.9	72.9	73.0	73.1	73.1	73.2	73.2	73.3	73.5	73.5
>= 3500	36.1	60.3	64.2	68.7	72.0	73.1	74.1	74.4	74.4	74.5	74.6	74.6	74.7	74.7	74.8	75.0	75.0
>= 3000	37.7	62.5	66.7	71.3	74.5	75.6	76.8	77.1	77.1	77.2	77.4	77.4	77.5	77.5	77.6	77.8	77.8
>= 2500	38.8	63.8	68.1	72.6	76.1	77.4	78.5	78.8	78.8	78.9	79.1	79.1	79.2	79.2	79.3	79.5	79.5
>= 2000	40.0	66.2	70.5	75.3	79.0	80.3	81.4	81.8	81.8	82.1	82.1	82.2	82.2	82.3	82.5	82.5	82.5
>= 1800	40.5	67.2	71.8	76.8	80.4	81.8	83.1	83.4	83.4	83.5	83.7	83.7	83.8	83.8	84.1	84.1	84.1
>= 1500	40.9	69.8	74.6	79.9	83.6	85.1	86.5	86.9	86.9	87.0	87.2	87.2	87.3	87.3	87.4	87.6	87.6
>= 1200	41.1	71.6	76.8	82.4	86.1	87.2	88.4	89.7	89.7	90.2	90.2	90.3	90.3	90.4	90.6	90.6	90.6
>= 1000	41.4	72.4	78.1	83.9	87.8	89.7	91.5	91.8	91.8	92.0	92.4	92.5	92.6	92.6	92.8	92.8	92.8
>= 900	41.4	73.0	78.9	84.7	88.8	90.7	92.6	93.0	93.0	93.3	93.5	93.5	93.6	93.6	93.7	93.7	93.7
>= 800	41.4	73.1	79.2	85.0	89.1	91.0	93.0	93.5	93.5	93.8	94.0	94.0	94.1	94.1	94.2	94.4	94.4
>= 700	41.6	73.5	79.6	85.5	89.6	91.5	93.5	94.0	94.0	94.3	94.5	94.5	94.6	94.6	94.7	94.9	94.9
>= 600	41.6	73.5	79.9	85.9	90.2	92.3	94.3	94.8	94.8	95.1	95.4	95.4	95.5	95.5	95.6	95.8	95.8
>= 500	41.6	73.6	79.6	86.1	90.5	92.6	94.7	95.3	95.3	95.6	95.9	95.9	96.0	96.0	96.1	96.3	96.3
>= 400	41.6	73.6	80.0	86.1	90.7	93.0	95.1	95.7	95.7	96.1	96.4	96.4	96.6	96.6	96.7	97.0	97.0
>= 300	41.6	73.6	80.0	86.1	90.8	93.2	95.3	96.0	96.0	96.4	96.7	96.7	96.8	96.8	97.0	97.5	97.5
>= 200	41.6	73.6	80.0	86.1	90.8	93.2	95.3	96.0	96.0	96.4	96.7	96.7	96.8	96.8	97.0	97.6	97.6
>= 100	41.6	73.6	80.0	86.1	90.8	93.2	95.4	96.1	96.1	96.5	97.1	97.1	97.2	97.2	97.6	98.5	98.5
>= 0	41.6	73.6	80.0	86.1	90.8	93.2	95.4	96.1	96.1	96.5	97.1	97.1	97.2	97.2	97.6	100.0	100.0

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=0						
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	25.7	41.0	44.1	47.9	50.9	51.5	52.6	52.6	52.9	52.9	53.1	53.1	53.1	53.1
>=20000	26.1	42.0	45.6	49.5	52.7	53.4	54.4	54.5	54.8	54.8	55.0	55.0	55.0	55.3
>=18000	26.1	42.1	45.7	49.6	52.8	53.5	54.5	54.6	54.6	54.9	55.1	55.1	55.1	55.5
>=16000	26.3	42.5	46.3	50.2	53.4	54.1	55.1	55.2	55.6	55.6	55.8	55.8	55.8	56.1
>=14000	26.7	43.3	47.1	51.1	54.4	55.1	56.2	56.3	56.6	56.6	56.8	56.8	56.8	57.1
>=12000	27.5	44.9	49.0	53.0	56.4	57.1	58.1	58.2	58.5	58.5	58.7	58.7	58.7	59.1
>=10000	28.4	46.5	50.9	55.0	58.4	59.2	60.3	60.4	60.4	60.7	60.7	60.9	60.9	61.2
>=9000	28.7	46.9	51.4	55.6	59.7	60.8	60.9	60.9	61.2	61.2	61.4	61.4	61.4	61.7
>=8000	29.5	48.0	52.7	56.8	60.3	61.0	62.1	62.2	62.2	62.6	62.6	62.8	62.8	63.1
>=7000	30.1	49.0	53.6	57.8	61.3	62.0	63.2	63.3	63.6	63.6	63.8	63.8	63.8	64.1
>=6000	30.5	49.5	54.2	58.6	62.1	62.9	64.0	64.1	64.1	64.4	64.4	64.6	64.6	64.9
>=5000	31.4	51.0	55.8	60.2	63.9	64.6	65.7	65.8	65.8	66.2	66.2	66.4	66.4	66.7
>=4500	32.4	52.3	57.1	61.6	65.3	66.0	67.2	67.3	67.3	67.6	67.6	67.8	67.8	68.1
>=4000	33.0	53.4	58.3	62.9	66.6	67.3	68.4	68.5	68.5	68.8	68.8	69.0	69.0	69.3
>=3500	34.2	54.8	59.2	64.4	68.2	68.9	70.1	70.2	70.2	70.5	70.5	70.7	70.7	71.0
>=3000	35.3	56.6	61.6	66.2	70.1	70.9	72.0	72.0	72.1	72.4	72.4	72.6	72.6	72.9
>=2500	36.1	58.1	63.3	68.1	72.0	72.9	74.2	74.3	74.3	74.6	74.6	74.8	74.8	75.1
>=2000	37.8	61.3	66.7	71.6	75.8	76.9	78.2	78.3	78.3	78.6	78.6	78.8	78.8	79.1
>=1800	37.9	62.0	67.5	72.6	77.0	78.1	79.4	79.5	79.5	79.8	79.8	80.0	80.0	80.3
>=1500	38.5	64.7	71.0	76.7	81.3	82.6	84.2	84.4	84.4	84.7	84.7	84.9	84.9	85.2
>=1200	38.7	66.0	72.6	78.6	83.5	84.9	86.4	86.6	86.6	86.9	86.9	87.1	87.1	87.4
>=1000	38.7	67.4	74.1	80.7	86.7	87.3	89.0	89.2	89.2	89.5	89.5	89.7	89.7	90.0
>=900	38.7	67.8	74.5	81.2	86.5	87.9	89.6	89.8	89.8	90.1	90.1	90.3	90.3	90.6
>=800	38.8	67.9	74.7	81.5	87.0	88.5	90.5	90.7	90.7	91.0	91.0	91.3	91.3	91.6
>=700	39.0	68.3	75.2	82.2	87.9	89.3	91.5	91.7	91.7	92.0	92.0	92.2	92.2	92.5
>=600	39.0	68.5	75.7	82.9	88.6	90.0	92.2	92.4	92.5	92.8	92.8	93.0	93.0	93.3
>=500	39.0	68.5	75.7	83.2	89.2	90.7	92.9	93.1	93.2	93.6	93.6	93.9	93.9	94.3
>=400	39.0	68.6	75.9	83.4	89.4	90.9	93.2	93.5	93.6	94.0	94.2	94.4	94.4	95.0
>=300	39.0	68.6	75.9	83.4	89.4	90.9	93.2	93.5	93.6	94.1	94.3	94.7	94.7	95.4
>=200	39.0	68.6	75.9	83.4	89.4	90.9	93.3	93.6	93.7	94.2	94.7	95.3	95.4	96.2
>=100	39.0	68.6	75.9	83.4	89.4	91.0	93.4	93.7	93.9	94.4	94.9	95.7	95.8	97.3
>=0	39.0	68.6	75.9	83.4	89.4	91.0	93.4	93.7	93.9	94.4	94.9	95.8	95.9	96.2

TOTAL NO. OF OBS : 972

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=1.2	>=1	>=1/2	>=1/4	
UNLIMIT	20.5	32.7	36.6	40.2	42.8	43.4	44.5	45.0	45.0	45.0	45.4
>=20000	20.7	33.5	37.7	41.6	44.3	45.1	46.3	46.8	46.8	46.8	45.8
>=18000	20.7	33.9	38.1	42.0	44.7	45.5	46.7	47.2	47.2	47.2	47.7
>=16000	20.9	34.3	38.5	42.4	45.1	46.0	47.1	47.6	47.6	47.6	48.5
>=14000	21.4	35.1	39.6	43.5	46.6	47.4	48.5	49.0	49.0	49.0	49.9
>=12000	22.0	36.7	41.7	45.5	48.7	49.5	50.8	51.3	51.3	51.3	52.2
>=10000	23.3	39.0	44.1	48.3	51.8	52.6	53.8	54.4	54.4	54.4	55.3
>= 9000	23.7	39.5	44.6	48.8	52.3	53.1	54.4	54.9	54.9	54.9	55.8
>= 8000	24.5	41.1	46.3	50.6	54.1	55.0	56.2	56.7	56.7	56.8	57.6
>= 7000	25.0	42.0	47.2	51.6	55.2	56.0	57.3	57.8	57.8	57.9	58.8
>= 6000	25.5	42.6	47.8	52.3	55.9	56.7	58.0	58.5	58.5	58.6	59.5
>= 5000	26.0	43.6	48.9	53.6	57.2	58.0	59.4	59.9	59.9	60.0	60.8
>= 4500	26.7	44.5	49.9	54.8	58.4	59.3	60.6	61.1	61.1	61.1	61.7
>= 4000	27.2	45.6	51.1	56.0	59.7	60.5	61.8	62.3	62.3	62.4	63.4
>= 3500	27.6	46.5	52.0	57.1	60.2	61.4	63.1	63.6	63.6	63.8	64.6
>= 3000	28.8	48.8	54.5	59.9	63.6	64.4	65.9	66.4	66.4	66.6	67.5
>= 2500	30.3	52.0	57.8	63.5	67.5	68.4	69.9	70.4	70.4	70.5	71.4
>= 2000	31.7	55.4	61.6	67.5	71.5	72.7	74.3	74.8	74.8	75.0	75.8
>= 1800	31.7	55.8	62.1	68.2	72.4	73.5	75.1	75.6	75.6	75.7	76.7
>= 1500	32.9	59.0	65.9	72.4	76.7	78.2	79.8	80.5	80.5	80.6	81.6
>= 1200	33.3	59.9	67.1	74.1	78.5	80.1	82.0	82.6	82.6	82.7	83.7
>= 1000	33.5	61.2	68.5	75.8	80.3	82.1	84.1	84.9	84.9	85.0	85.5
>= 900	33.8	61.8	69.2	76.8	81.5	83.3	85.4	86.2	86.2	86.4	86.9
>= 800	33.9	62.5	70.1	77.7	82.4	84.4	86.5	87.4	87.4	87.6	88.6
>= 700	33.9	62.6	70.2	77.8	82.6	84.7	87.0	88.0	88.0	88.3	89.3
>= 600	33.9	63.3	70.8	76.9	83.9	86.3	88.5	89.6	89.7	90.0	90.5
>= 500	33.9	63.4	70.9	79.2	84.3	86.7	89.0	90.3	90.5	91.1	91.9
>= 400	33.9	63.4	71.0	79.4	84.7	87.1	89.8	91.4	91.5	92.0	92.7
>= 300	33.9	63.4	71.0	79.4	84.9	87.3	90.1	92.0	92.1	93.0	93.3
>= 200	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	93.2	93.9
>= 100	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	93.3	94.5
>= 0	33.9	63.4	71.0	79.4	84.9	87.3	90.2	92.1	92.2	93.6	95.0

TOTAL NO. OF OBS : 977

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	19.9	28.5	33.9	38.9	41.4	43.1	44.9	45.7	46.3	46.3
>=20000	20.4	30.1	35.8	41.3	46.4	46.4	48.4	49.2	49.8	49.8
>=18000	20.5	30.3	36.0	41.7	44.0	46.8	48.8	49.6	50.5	50.5
>=16000	20.7	30.7	36.5	42.3	45.5	47.7	49.6	50.5	51.1	51.1
>=14000	20.9	31.0	37.1	43.3	46.6	49.0	51.3	52.1	52.7	52.7
>=12000	21.9	32.8	39.1	45.7	49.1	51.5	53.9	54.8	55.4	55.4
>=10000	22.6	34.3	40.8	48.3	52.1	54.7	57.2	58.3	58.9	58.9
>=9000	23.0	34.7	41.3	48.8	52.6	55.2	57.8	58.9	59.6	59.6
>=8000	23.5	36.2	42.7	50.5	54.4	57.0	59.7	61.8	61.4	61.4
>=7000	23.7	36.6	43.1	51.0	55.0	57.6	60.3	61.5	62.2	62.2
>=6000	24.2	37.5	44.1	51.9	55.9	58.5	61.3	62.6	63.2	63.2
>=5000	24.5	38.3	45.0	52.8	57.0	59.6	62.4	63.6	64.2	64.2
>=4500	24.9	39.1	45.9	54.0	58.1	60.7	63.6	64.9	65.6	65.6
>=4000	25.2	40.0	46.9	55.3	59.6	62.3	65.1	66.5	67.1	67.1
>=3500	25.9	41.4	48.3	56.2	61.1	63.8	66.7	68.0	68.7	68.7
>=3000	27.2	44.1	51.0	59.7	64.0	66.7	69.6	70.9	71.6	71.6
>=2500	27.9	46.3	53.5	62.6	67.0	69.9	73.1	74.5	75.1	75.1
>=2000	29.2	48.9	56.4	65.8	70.4	73.4	76.9	78.3	78.9	78.9
>=1800	29.4	49.3	56.8	66.3	70.9	74.3	77.8	79.1	79.7	79.7
>=1500	30.0	51.0	58.7	68.4	73.3	76.8	80.9	82.3	83.0	83.0
>=1200	30.4	52.2	60.5	70.7	76.0	80.0	84.3	85.8	86.6	86.6
>=1000	30.7	53.2	61.7	72.5	77.8	81.9	86.2	87.8	88.7	88.7
>=900	30.7	53.2	61.7	72.5	77.8	81.9	86.5	88.1	89.0	89.0
>=800	30.7	53.4	62.0	73.2	78.6	82.8	87.7	89.7	90.6	90.6
>=700	30.7	53.4	62.0	73.3	79.0	83.2	88.2	90.2	91.3	91.3
>=600	30.7	53.5	62.3	73.6	79.4	83.8	89.1	91.3	92.3	92.3
>=500	30.7	53.5	62.3	72.6	79.5	84.0	89.6	92.1	92.2	93.5
>=400	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.6	92.7	94.0
>=300	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.8	92.9	94.3
>=270	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	93.0	94.6
>=100	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	93.0	95.7
>=0	30.7	53.5	62.3	73.6	79.6	84.1	89.8	92.9	93.0	94.6

TOTAL NO. OF OBS : 967

## 2 - CEILING VS VISIBILITY

D23239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)														
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	19.4	31.7	35.5	40.5	45.2	47.6	49.5	50.4	50.7	51.1	51.2	51.4	51.5	51.5	51.5
>=20000	19.9	33.4	37.7	43.5	48.5	51.3	53.4	54.2	54.6	55.0	55.1	55.3	55.4	55.4	55.4
>=18000	19.2	33.6	38.0	43.9	48.8	51.6	53.7	54.6	54.9	55.2	55.5	55.8	55.9	55.9	55.9
>=16000	20.3	34.1	38.6	44.6	49.7	52.6	54.8	55.6	55.9	56.3	56.6	56.7	56.9	56.9	56.9
>=14000	20.7	35.0	39.7	46.1	51.4	54.2	56.5	57.4	57.7	58.1	58.3	58.4	58.7	58.7	58.7
>=12000	21.6	36.8	41.7	48.3	54.0	56.9	59.2	60.2	60.5	61.0	61.2	61.3	61.5	61.6	61.6
>=10000	22.4	38.1	43.0	50.3	56.3	59.2	61.5	62.6	63.0	63.4	63.6	63.7	63.9	63.9	64.0
>= 9000	22.6	38.4	43.3	50.6	56.8	59.6	61.9	63.1	63.4	63.8	64.0	64.1	64.3	64.4	64.4
>= 8000	23.5	39.8	44.7	52.0	58.2	61.2	63.5	64.6	65.0	65.4	65.7	66.0	66.0	66.1	66.1
>= 7000	23.6	40.4	45.4	52.9	59.1	62.1	64.4	65.6	65.9	66.3	66.5	66.6	66.9	66.9	67.1
>= 6000	23.9	40.9	46.0	53.4	59.6	62.6	65.0	66.1	66.4	66.8	67.1	67.2	67.5	67.6	67.6
>= 5000	24.1	41.4	46.5	54.0	60.3	63.4	65.7	66.8	67.2	67.6	67.9	68.2	68.2	68.3	68.3
>= 4500	24.9	42.4	47.7	55.3	61.6	64.6	67.1	68.2	68.7	69.0	69.3	69.4	69.7	69.8	69.8
>= 4000	25.8	44.6	50.1	57.8	64.4	67.0	70.0	71.1	71.5	72.0	72.2	72.3	72.6	72.7	72.7
>= 3500	26.8	46.2	51.7	59.5	66.2	69.3	71.8	72.9	73.2	73.8	74.0	74.4	74.5	74.5	74.5
>= 3000	27.9	48.7	54.5	62.4	69.2	72.3	75.0	76.2	76.5	77.0	77.2	77.3	77.6	77.6	77.6
>= 2500	28.9	51.2	57.2	65.5	72.3	75.6	78.4	79.5	79.9	80.4	80.6	80.7	81.0	81.1	81.1
>= 2020	30.4	53.7	59.9	68.3	75.2	78.5	81.6	82.8	83.1	83.6	83.8	83.9	84.3	84.4	84.4
>= 1800	30.7	54.5	60.8	69.3	76.3	79.6	82.8	83.9	84.3	84.9	85.1	85.2	85.5	85.6	85.6
>= 1500	31.3	56.3	63.1	72.1	79.4	83.0	86.5	87.7	88.0	88.7	88.9	89.0	89.3	89.4	89.4
>= 1200	31.8	57.4	64.5	79.2	81.2	85.4	88.9	90.2	90.5	91.3	91.6	91.9	92.0	92.0	92.0
>= 1000	31.5	58.4	65.6	75.4	83.2	87.3	91.0	92.7	93.1	93.7	93.9	94.0	94.3	94.4	94.4
>= 900	31.5	58.4	65.6	75.6	83.7	87.6	91.7	93.4	93.8	94.5	94.8	94.9	95.2	95.3	95.3
>= 800	31.5	59.0	66.1	76.3	84.8	88.7	93.0	94.6	95.1	95.8	96.0	96.1	96.4	96.5	96.5
>= 700	31.5	59.0	66.1	76.3	85.0	88.9	93.2	95.0	95.4	96.1	96.3	96.4	96.7	96.9	96.9
>= 600	31.5	59.0	66.1	76.4	85.1	89.1	93.6	95.4	95.8	96.6	97.0	97.1	97.4	97.5	97.5
>= 500	31.5	59.0	66.1	76.5	85.2	89.2	93.8	95.7	96.1	97.1	97.4	97.5	97.8	97.9	97.9
>= 400	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.0	98.4	98.5	99.0	99.1	99.1
>= 300	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.5	99.5
>= 200	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.6	99.6
>= 100	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.6	99.6
>= 0	31.5	59.1	66.3	76.8	85.7	89.7	94.3	96.3	96.9	98.2	98.6	98.8	99.4	99.7	100.0

TOTAL NO. OF OBS : 953

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	
UNLIMIT	23.4	38.8	43.6	48.6	51.9	52.9	54.3	54.5	54.7	54.7	54.7
>=20000	23.9	40.9	46.3	51.9	55.6	56.7	58.3	58.5	58.7	58.7	58.7
>=18000	24.1	41.2	46.6	52.2	55.9	57.1	58.6	58.7	59.1	59.1	59.1
>=16000	24.3	41.6	47.1	52.7	56.5	57.7	59.3	59.5	59.7	59.7	59.7
>=14000	24.9	43.1	48.9	54.8	58.8	60.1	61.7	62.0	62.3	62.3	62.3
>=12000	25.7	44.8	50.9	56.9	60.9	62.3	63.9	64.3	64.6	64.6	64.6
>=10000	27.5	47.7	54.0	60.1	64.3	65.9	67.5	68.0	68.1	68.3	68.3
>= 9000	27.6	47.8	54.1	60.2	64.4	66.0	67.6	68.1	68.4	68.4	68.4
>= 8000	28.0	48.8	55.4	61.5	65.8	67.5	69.1	69.6	69.9	69.9	69.9
>= 7000	28.5	49.7	56.2	62.3	66.8	68.6	70.2	70.7	71.2	71.2	71.2
>= 6000	28.7	50.2	56.7	62.6	67.4	69.2	70.7	71.4	71.6	71.8	71.8
>= 5000	29.3	51.3	57.9	64.0	68.6	70.5	72.2	72.8	73.1	73.3	73.3
>= 4500	29.4	52.0	58.6	64.8	69.5	71.4	73.2	73.8	74.0	74.2	74.2
>= 4000	29.9	52.8	59.6	66.0	70.7	72.6	74.5	75.2	75.4	75.7	75.7
>= 3500	30.2	54.7	61.5	68.1	72.9	74.8	76.7	77.4	77.6	77.9	77.9
>= 3000	31.9	56.9	63.8	70.5	75.5	77.4	79.5	80.2	80.4	80.7	80.7
>= 2500	32.9	58.7	65.6	72.5	77.5	79.5	81.8	82.5	82.7	83.1	83.1
>= 2000	34.2	62.0	69.2	76.4	81.6	83.8	86.2	86.9	87.2	87.7	87.7
>= 1800	34.3	62.3	69.7	77.1	82.4	84.7	87.2	87.9	88.1	88.6	88.6
>= 1500	34.7	63.8	71.5	79.2	84.8	87.5	89.9	90.7	90.9	91.6	91.6
>= 1200	34.7	64.3	72.1	80.1	86.3	89.2	91.8	92.6	92.9	93.6	93.7
>= 1000	34.8	65.3	73.2	81.8	88.0	90.9	93.7	94.5	94.9	95.5	95.7
>= 900	34.9	65.7	73.7	82.4	89.2	90.1	94.9	95.9	96.2	96.8	97.1
>= 800	34.9	66.0	74.0	82.9	89.8	92.3	95.7	96.6	96.9	97.6	97.8
>= 700	34.9	66.1	74.1	83.1	90.1	93.1	95.9	96.9	97.3	98.1	98.1
>= 600	34.9	66.1	74.1	83.1	90.0	93.2	96.1	97.3	97.7	98.6	98.6
>= 500	34.9	66.1	74.1	83.1	90.0	93.1	96.1	97.3	97.7	98.6	98.6
>= 400	34.9	66.1	74.1	83.1	90.0	93.3	96.3	97.6	98.0	99.1	99.1
>= 300	34.9	66.1	74.1	83.1	90.0	93.3	96.3	97.6	98.0	99.4	99.4
>= 200	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.5	99.5
>= 100	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.5	99.5
>= 0	34.9	66.1	74.1	83.2	90.1	93.4	96.4	97.7	98.1	99.5	99.5

TOTAL NO. OF OBS : 950

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=1/2						
UNLIMIT	30.8	51.4	54.9	56.8	57.7	57.9	58.2	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
>=20000	31.2	53.3	56.8	58.8	59.7	59.8	60.2	60.2	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>=18000	31.2	53.5	57.0	59.0	59.9	60.0	60.4	60.5	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=16000	31.4	54.0	57.6	59.5	60.5	60.6	60.7	61.0	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>=14000	32.4	55.8	59.5	61.5	62.4	62.5	62.7	63.0	63.0	63.1	63.1	63.1	63.1	63.1	63.1	63.1
>=12000	32.8	57.3	61.2	63.1	64.3	64.4	64.6	64.9	64.9	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=10000	33.6	59.5	63.5	65.5	67.2	67.3	67.5	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=9000	33.9	59.8	63.9	66.4	67.6	67.7	67.9	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=8000	34.9	61.2	65.9	68.4	69.8	69.9	70.1	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=7000	35.5	62.9	67.2	69.7	71.1	71.2	71.4	71.7	71.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>=6000	35.7	63.5	67.7	70.2	71.6	71.7	71.9	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=5000	36.4	65.0	69.4	71.8	73.3	73.4	73.6	73.9	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>=4500	36.7	65.8	70.3	72.9	74.3	74.4	74.7	75.1	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>=4000	37.6	67.1	71.5	74.1	75.6	75.7	76.0	76.3	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=3500	38.0	68.2	72.7	75.4	76.8	76.9	77.2	77.5	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=3000	39.1	70.4	75.2	78.2	79.6	79.7	80.2	80.5	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7
>=2500	40.3	72.6	77.4	80.4	81.9	82.1	82.6	82.9	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>=2000	41.4	75.5	80.7	84.4	85.5	85.8	86.3	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=1800	42.1	76.8	82.2	85.6	87.1	87.4	87.9	88.3	88.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>=1500	43.0	79.0	84.4	88.3	89.8	90.1	91.4	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>=1200	43.2	80.5	86.1	90.2	91.7	92.0	92.4	93.1	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>=1000	43.5	81.3	87.0	91.0	92.7	93.0	94.2	94.8	94.9	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>=900	43.5	81.4	87.1	91.3	93.1	93.5	94.7	95.3	95.4	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>=800	43.6	82.2	88.0	92.5	94.4	94.8	96.1	96.7	96.8	97.1	97.1	97.2	97.2	97.2	97.2	97.2
>=700	43.6	82.3	88.3	92.9	94.8	95.2	96.6	97.2	97.3	97.6	97.6	97.7	97.7	97.7	97.7	97.7
>=600	43.6	82.4	88.5	93.1	95.2	95.7	97.0	97.6	97.7	98.0	98.1	98.1	98.2	98.2	98.2	98.2
>=500	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.0	98.4	98.6	98.6	98.7	98.7	98.7	98.7
>=400	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.0	98.1	98.7	99.0	99.0	99.1	99.1	99.1
>=300	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.0	98.1	98.9	99.2	99.2	99.3	99.3	99.3
>=200	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.1	98.2	98.9	99.2	99.2	99.3	99.3	99.3
>=100	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.1	98.2	98.9	99.2	99.2	99.4	99.4	99.4
>=0	43.6	82.4	88.7	93.3	95.4	95.9	97.2	97.9	98.1	98.2	98.9	99.2	99.2	99.5	99.5	99.5

TOTAL NO. OF OBS : 966

## ? - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=5/32
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	30.4	49.9	53.1	55.5	57.1	57.3	57.6	57.9	58.1	58.3	58.4	58.4	58.4	58.4	58.4	58.4
>=20000	31.4	51.0	55.2	57.8	59.5	59.7	60.0	60.3	60.4	60.6	60.7	60.7	60.7	60.7	60.7	60.7
>=18000	31.4	51.1	55.3	57.9	59.6	59.8	60.1	60.4	60.5	60.7	60.7	60.8	60.8	60.8	60.8	60.8
>=16000	31.4	51.4	55.6	58.6	60.0	60.2	60.5	60.8	60.9	61.1	61.1	61.2	61.2	61.2	61.2	61.2
>=14000	32.2	52.8	57.0	59.8	61.5	62.1	62.4	62.4	62.5	62.5	62.7	62.8	62.8	62.8	62.8	62.8
>=12000	33.2	54.8	59.3	62.1	63.8	64.3	64.6	64.6	64.6	64.7	64.9	65.0	65.0	65.0	65.0	65.0
>=10000	34.1	56.3	61.0	64.1	65.9	66.2	66.6	66.9	67.0	67.2	67.2	67.3	67.3	67.3	67.3	67.3
>= 9000	34.4	56.7	61.5	64.7	66.6	66.8	67.2	67.5	67.6	67.8	67.8	67.9	67.9	67.9	67.9	67.9
>= 8000	35.0	57.8	62.8	65.9	67.8	68.1	68.5	68.8	68.8	68.9	69.1	69.2	69.2	69.2	69.2	69.2
>= 7000	35.2	59.1	64.2	67.4	69.3	69.6	70.1	70.4	70.5	70.7	70.7	70.8	70.8	70.8	70.8	70.8
>= 6000	35.6	59.7	64.8	68.0	69.9	70.3	70.7	71.0	71.3	71.3	71.4	71.4	71.4	71.4	71.4	71.4
>= 5000	36.7	61.8	67.2	70.4	72.3	72.6	73.0	73.3	73.3	73.4	73.6	73.7	73.7	73.7	73.7	73.7
>= 4500	37.1	62.9	68.2	71.4	73.3	73.6	74.1	74.4	74.4	74.5	74.7	74.8	74.8	74.8	74.8	74.8
>= 4000	37.9	64.4	69.7	72.9	75.0	75.3	75.7	76.0	76.0	76.1	76.3	76.4	76.4	76.4	76.4	76.4
>= 3500	38.7	65.3	70.7	73.8	75.9	76.2	76.6	76.9	76.9	77.0	77.2	77.3	77.3	77.3	77.3	77.3
>= 3000	39.9	67.3	72.8	76.0	78.2	78.5	78.8	79.0	79.3	79.4	79.6	79.7	79.7	79.7	79.7	79.7
>= 2500	40.7	69.0	74.7	77.9	80.1	80.4	80.9	81.2	81.2	81.3	81.5	81.7	81.7	81.7	81.7	81.7
>= 2000	42.3	72.6	78.5	81.7	84.0	84.3	84.9	85.2	85.2	85.3	85.5	85.7	85.7	85.7	85.7	85.7
>= 1800	42.6	73.1	79.1	82.5	84.8	85.1	85.7	86.1	86.1	86.2	86.4	86.6	86.6	86.6	86.6	86.6
>= 1500	43.1	75.2	81.5	85.0	87.5	87.9	88.6	88.9	88.9	89.0	89.2	89.4	89.4	89.4	89.4	89.4
>= 1200	43.6	76.9	83.7	87.7	90.5	91.3	91.8	92.2	92.3	92.5	92.7	92.7	92.7	92.7	92.7	92.7
>= 1000	44.1	78.3	85.2	89.4	92.3	92.8	93.7	94.3	94.3	94.5	94.7	94.7	94.7	94.7	94.7	94.7
>= 900	44.2	78.7	85.6	89.8	92.7	93.2	94.2	94.7	94.7	94.8	95.1	95.4	95.4	95.4	95.4	95.4
>= 800	44.4	79.2	96.2	90.5	93.3	93.8	94.9	95.4	95.4	95.7	95.9	96.2	96.2	96.2	96.2	96.2
>= 700	44.4	79.5	86.5	90.9	94.2	94.7	95.7	96.2	96.2	96.5	96.7	97.0	97.0	97.0	97.0	97.0
>= 600	44.4	79.5	86.5	90.9	94.2	94.3	95.8	96.3	96.3	96.6	96.8	97.1	97.1	97.1	97.1	97.1
>= 500	44.4	79.5	86.5	91.0	94.4	95.1	96.1	96.8	96.8	97.1	97.3	97.6	97.6	97.6	97.6	97.6
>= 400	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.3	97.6	97.9	98.3	98.4	98.4	98.4	98.4
>= 300	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.3	97.7	98.1	98.4	98.5	98.5	98.5	98.5
>= 200	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.3	98.6	99.0	99.0	99.0	99.0
>= 100	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.4	99.0	99.1	99.1	99.1	99.1
>= C	44.4	79.5	86.6	91.1	94.6	95.4	96.5	97.2	97.4	97.9	98.4	99.0	99.1	99.1	99.1	99.1

TOTAL NO. OF OBS : 975

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	VISIBILITY (STATUTE MILES)				>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
								>=1	>=1/2	>=1/4	>=1/16							
UNLIMIT	24.9	40.0	43.9	47.7	50.3	51.3	52.7	52.8	53.0	53.1	53.2	53.2	53.3	53.3	53.3	53.3	53.3	53.3
>=20000	25.4	41.6	45.8	50.0	52.8	53.9	55.0	55.4	55.5	55.7	55.8	55.9	55.9	56.0	56.0	56.1	56.1	56.1
>=18000	25.4	41.8	46.0	50.2	53.0	54.1	55.3	55.7	55.8	56.0	56.1	56.2	56.2	56.2	56.2	56.2	56.2	56.2
>=16000	25.6	42.2	46.5	50.7	53.6	54.7	55.9	56.3	56.4	56.6	56.7	56.8	56.8	56.8	56.8	56.8	56.8	56.8
>=14000	26.1	43.2	47.7	52.1	55.1	56.3	57.5	58.0	58.0	58.2	58.3	58.4	58.4	58.4	58.4	58.4	58.4	58.4
>=12000	27.0	44.9	49.7	54.2	57.3	58.5	59.7	60.2	60.3	60.5	60.5	60.6	60.7	60.7	60.7	60.7	60.7	60.7
>=10000	28.0	46.8	51.7	56.6	59.9	61.1	62.4	62.9	63.0	63.3	63.3	63.4	63.4	63.5	63.5	63.5	63.5	63.5
>=9000	28.3	47.2	52.2	57.0	60.4	61.6	62.9	63.4	63.5	63.7	63.8	63.9	63.9	64.0	64.0	64.0	64.0	64.0
>=8000	28.9	48.5	53.5	58.4	61.9	63.1	64.4	65.0	65.0	65.3	65.3	65.4	65.4	65.5	65.5	65.5	65.5	65.5
>=7000	29.3	49.3	54.4	59.4	62.9	64.2	65.5	66.1	66.2	66.4	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6
>=6000	29.7	50.0	55.1	60.1	63.6	64.9	66.3	66.8	66.9	67.1	67.2	67.3	67.4	67.4	67.4	67.4	67.4	67.4
>=5000	30.4	51.2	56.5	61.5	66.4	67.8	68.4	68.4	68.4	68.7	68.7	68.8	68.9	68.9	69.0	69.0	69.0	69.0
>=4500	30.9	52.2	57.5	62.6	66.2	67.6	69.0	69.6	69.6	69.9	69.9	70.0	70.0	70.1	70.1	70.1	70.1	70.1
>=4000	31.5	53.4	58.8	64.0	67.7	69.1	71.1	71.2	71.2	71.5	71.5	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=3500	32.3	54.7	60.1	65.5	69.2	70.6	72.0	72.6	72.6	73.0	73.0	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=3000	33.5	56.9	62.5	68.0	71.8	73.2	74.7	75.3	75.4	75.7	75.8	75.9	75.9	76.0	76.0	76.0	76.0	76.0
>=2500	34.5	59.0	64.7	70.4	74.3	75.8	77.4	78.0	78.1	78.3	78.4	78.5	78.6	78.6	78.6	78.6	78.6	78.6
>=2000	35.9	62.0	67.9	73.8	77.9	79.4	81.2	81.8	81.9	82.2	82.3	82.4	82.5	82.5	82.5	82.5	82.5	82.5
>=1800	36.2	62.7	68.8	74.8	78.9	80.5	82.4	83.0	83.0	83.3	83.4	83.5	83.6	83.6	83.6	83.6	83.6	83.6
>=1500	36.8	64.9	71.4	77.8	82.0	83.9	85.9	86.6	86.6	87.0	87.1	87.1	87.2	87.3	87.3	87.3	87.3	87.3
>=1200	37.1	66.1	73.0	79.8	84.3	86.3	88.4	89.2	89.2	89.5	89.6	89.7	89.8	89.8	89.8	89.8	89.8	89.8
>=1000	37.3	67.2	74.2	81.3	86.7	88.1	90.4	91.2	91.3	91.7	91.8	92.0	92.1	92.1	92.1	92.1	92.1	92.1
>=900	37.4	67.5	74.6	81.6	86.7	88.8	91.2	92.0	92.1	92.6	92.7	92.9	92.9	93.0	93.1	93.1	93.1	93.1
>=800	37.4	67.9	75.1	82.5	87.4	89.6	92.1	93.1	93.2	93.6	93.7	93.8	93.9	94.0	94.0	94.0	94.0	94.0
>=700	37.5	68.1	75.3	82.8	87.9	90.1	92.7	93.6	93.7	94.2	94.3	94.4	94.5	94.5	94.6	94.6	94.6	94.6
>=600	37.5	68.2	75.5	83.1	89.3	93.6	93.6	94.3	94.5	94.9	95.1	95.3	95.3	95.4	95.4	95.4	95.4	95.4
>=500	37.5	68.3	75.6	83.3	88.6	90.9	93.7	94.8	95.0	95.6	95.8	96.0	96.0	96.1	96.1	96.1	96.1	96.1
>=400	37.5	68.3	75.6	83.4	88.8	91.2	94.0	95.3	95.5	96.1	96.4	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>=300	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.4	95.6	96.4	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>=200	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.5	97.0	97.4	97.5	97.5	97.5	97.5	97.5	97.5
>=100	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.6	97.0	97.4	97.7	97.7	97.7	97.7	97.7	97.7
>=0	37.5	68.3	75.6	83.4	88.8	91.2	94.1	95.5	95.7	96.6	97.0	97.4	97.7	97.7	97.7	97.7	97.7	97.7

TOTAL NO. OF ODS : 7741

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LNGN. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL		MEAN WIND SPEED
															%	#	
N	3.8	4.1	2.9	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.4	6.2
NNE	1.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	3.5
NE	.7	.3	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	6.1
ENE	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	4.4
E	2.0	2.3	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	4.6
EESE	1.5	3.1	1.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.1
SE	2.0	2.2	2.0	1.9	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	8.5
SSE	.9	2.2	.8	.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	9.1
S	.4	1.9	1.8	1.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	8.3
SSW	.2	1.1	.7	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	9.1
SW	.8	1.3	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	6.8
WSW	.3	1.0	.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	7.9
W	.8	1.4	1.7	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	8.4
WNW	.6	1.1	1.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	7.4
NNW	2.1	2.3	1.4	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.1
MNW	1.2	2.8	2.2	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0	0.0
ALL	19.1	27.9	18.4	11.8	2.7	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.7

TOTAL NO. OF OBS : 904

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						TOTAL	MEAN WIND SPEED
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27		
N	3.1	4.5	2.7	1.7	.2	.0	.0	.0	12.2
NE	.9	1.9	.4	.2	.1	.0	.0	.0	3.1
E	.9	1.3	.1	.0	.0	.0	.0	.0	1.3
ENE	.3	.1	.7	.0	.0	.0	.0	.0	2.9
E	2.3	2.1	.8	.1	.0	.0	.0	.0	5.8
ESE	2.1	4.2	2.0	.3	.0	.0	.0	.0	5.3
SE	1.4	4.0	1.5	2.2	1.0	.3	.0	.0	4.3
SSE	.8	1.0	1.2	1.7	.4	.0	.0	.0	9.3
S	.7	1.42	.6	1.2	.1	.3	.0	.0	5.1
SSW	.9	1.0	.8	.8	.0	.0	.0	.0	6.9
SW	.8	.7	.6	.3	.0	.0	.0	.0	7.3
WSW	.1	.4	1.2	1.0	.0	.0	.0	.0	6.0
W	.4	1.1	1.2	.9	.1	.0	.0	.0	9.7
WNW	.7	1.2	1.1	.1	.2	.0	.0	.0	8.6
NNW	1.3	1.9	1.4	.6	.1	.0	.0	.0	6.8
NNW	1.5	3.2	1.9	1.3	.2	.0	.0	.0	6.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	7.1
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	18.3	28.4	18.1	12.4	2.5	1.2	.2	.0	18.8
								.0	0.0
								.0	100.0
								.0	5.8

TOTAL NO. OF OBS : 904

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR. 1	DIR. 2	SPEED (KNOTS)						>=56 1	TOTAL 1	MEAN WIND SPEED
		16-31	31-46	46-61	61-76	76-111	111-166			
N	3.3	5.9	2.5	1.9	.3	.0	.0	.0	.0	13.9
NNE	1.8	1.7	.7	.0	.1	.0	.0	.0	.0	4.2
NE	1.0	.6	.2	.2	.0	.0	.0	.0	.0	4.6
ENE	.3	.3	.0	.0	.0	.0	.0	.0	.0	2.0
E	1.4	2.5	1.1	.1	.1	.0	.0	.0	.0	4.9
ESE	1.7	4.1	2.4	.8	.1	.0	.0	.0	.0	3.8
SE	1.9	3.1	1.7	2.2	.7	.6	.0	.0	.0	5.3
SSE	1.3	2.0	1.0	1.4	.0	.3	.0	.0	.0	5.5
S	1.5	1.5	.9	.8	.2	.1	.0	.0	.0	6.4
SSW	.7	.6	.6	1.0	.1	.1	.0	.0	.0	9.2
SW	.7	.7	.2	.2	.0	.1	.0	.0	.0	10.1
WSW	.4	.6	.3	.2	.2	.0	.0	.0	.0	8.9
W	.2	1.7	.9	.6	.2	.0	.0	.0	.0	6.1
NNW	.6	.7	.8	.6	.2	.0	.0	.0	.0	8.4
NU	1.1	1.5	1.1	.8	.0	.0	.0	.0	.0	7.0
NNW	1.0	2.9	2.2	1.0	.0	.1	.0	.0	.0	5.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5
ALL	18.5	30.2	16.7	11.7	2.3	1.4	.0	.0	.0	7.2
										7.0
										5.6

TOTAL NO. OF OBS : 904

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN	
		1	31	4	-	61	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>55
N	1.4	2.3	2.2	2.0	2.0	3	.2	.0	.0	.0	.0	.0	.0	8.5
NNE	.7	.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9
NE	.1	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4
ENE	.1	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
E	.4	1.1	.8	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	8.2
ESE	.8	.7	1.1	.8	.1	.1	.1	.0	.0	.0	.0	.0	.0	.9
SE	1.2	4.1	3.0	2.4	.9	.2	.1	.0	.0	.0	.0	.0	.0	6.2
SSE	1.4	3.0	3.2	1.5	.8	.6	.0	.0	.0	.0	.0	.0	.0	3.7
S	5.1	5.8	1.7	.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	9.0
SSW	1.4	1.4	.3	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.3
SW	.9	.3	.3	.3	.1	.2	.0	.0	.0	.0	.0	.0	.0	6.1
WSW	.9	.7	.9	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	6.1
NNW	1.2	1.5	1.3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	7.3
NNW	1.0	1.4	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1
NNW	1.4	2.5	2.0	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.4
NNW	1.8	4.0	2.8	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	7.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	19.9	30.4	21.0	12.9	3.9	1.7	.2	.0	.0	.0	.0	.0	.0	6.7

TOTAL NO. OF OBS : 904

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN	WIND	SPEED
	16 PT.	1 - 31	4 - 61	7-10	11-16	17-21	22-27	28-33	34-40	41-47				
N	.7	1.2	1.4	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.1	.3	.4	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.1	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.2	.9	.2	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.1	.9	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0
SE	.7	1.2	1.4	1.3	.6	.6	.1	.0	.0	.0	.0	.0	.0	.0
SSE	.8	2.3	1.5	1.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0
S	1.5	4.8	1.5	2.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0
SSW	2.5	1.5	.9	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
SW	1.4	1.5	.9	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
WSW	1.7	3.3	2.1	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0
W	2.0	5.2	2.9	2.2	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.9	2.5	2.5	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNW	1.0	5.0	5.3	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNN	.6	3.2	4.9	1.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	14.0	33.5	27.1	14.6	5.0	1.8	.1	.0	.0	.0	.0	.0	.0	.0

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 904

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)						TOTAL	MEAN WIND SPEED
	1 - 3	4 - 6	7-10	11-16	17-21	22-27		
N	*2	1.3	.8	.7	.1	.0	*0	*0
NNE	*3	.4	.1	.2	.0	.0	*0	1.2
NE	*0	.0	.3	.1	.0	.0	*0	*4
ENE	*0	.3	.2	.0	.0	.0	*0	6.8
E	*2	.4	.7	.0	.0	.0	*0	1.3
ESE	*1	.0	.2	.0	.1	.0	*0	*0
SE	*0	.4	1.1	.7	.4	.1	*0	2.9
SSE	*6	.8	1.0	.6	.6	.0	*0	4.5
S	1.2	2.4	.6	1.7	.6	.2	*0	6.6
SSW	1.1	1.0	1.1	.6	.2	.1	*0	4.1
SW	1.1	1.3	1.8	1.1	.1	.0	*0	7.7
WSW	*8	1.7	2.5	1.4	.3	.0	*0	5.4
W	2.1	5.2	9.7	6.1	1.4	.1	*0	7.6
NNW	*3	2.8	7.6	2.1	.3	.1	*0	6.8
WW	*6	5.0	7.0	1.7	.2	.0	*0	8.2
NNW	*7	2.5	2.1	1.2	.2	.0	*0	6.9
VAR	*0	*0	*0	*0	*0	*0	*0	0.0
CLM	*0	*0	*0	*0	*0	*0	*0	0.0
ALL	9.3	25.7	36.9	18.6	4.8	1.6	*0	8.5

TOTAL NO. OF OBS : 903

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55			
N	2.0	2.1	1.8	.4	.1	.0	.0	.0	.0	.0	.0	0.0	6.4	5.7
NNE	.4	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	0.0	1.9	4.8
NE	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	0.0	1.0	4.8
ENE	.6	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	0.0	1.4	4.6
E	.2	1.3	.7	.0	.1	.0	.0	.0	.0	.0	.0	0.0	2.4	5.9
ESE	.4	.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	0.0	1.7	6.7
SE	.2	.2	.8	1.3	.2	.2	.1	.0	.0	.0	.0	0.0	3.1	12.9
SSE	.6	.9	.4	1.3	.7	.3	.0	.0	.0	.0	.0	0.0	4.2	11.2
S	.8	1.4	1.9	1.8	.2	.0	.0	.0	.0	.0	.0	0.0	6.1	9.0
SSW	.2	.4	1.1	.8	.1	.0	.0	.0	.0	.0	.0	0.0	2.7	9.5
SW	.7	1.2	.8	.8	.3	.1	.0	.0	.0	.0	.0	0.0	3.2	7.3
WSW	.6	1.6	.9	.3	.1	.1	.1	.0	.0	.0	.0	0.0	3.7	7.9
W	2.4	6.7	9.6	2.5	.4	.0	.0	.0	.0	.0	.0	0.0	21.7	7.5
NNW	2.5	4.3	4.1	2.4	.3	.0	.0	.0	.0	.0	.0	0.0	13.7	7.4
NNW	2.0	4.5	3.1	1.0	.0	.0	.0	.0	.0	.0	.0	0.0	10.6	6.1
NNW	1.7	3.9	2.7	.6	.0	.0	.0	.0	.0	.0	.0	0.0	9.0	6.2
VAR	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0
CLW	ALL	15.6	31.6	28.9	13.0	2.8	.8	.2	.0	.0	.0	0.0	100.0	6.9

TOTAL NO. OF OBS. :

902

NOTES : \* = PERCENT < .05

1 - SURFACE WINDS

0202339 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986.  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB.  
HOUR : 2200 LST

**PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)**

16 PT. DIR.	1 NNE	SPEED (KNOTS)										TOTAL WIND SPEED	
		1 NE	3 ENE	4 E	6 ESE	7-10 SE	11-16 SSE	17-21 S	22-27 SW	28-33 WSW	34-40 WNW	>56 ALL	
N	3.4	4.7	2.0	1.0	.1	.0	.0	.0	.0	.0	.0	11.2	5.6
NNE	1.2	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	2.7	4.0
NE	.7	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.2	4.3
ENE	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.2
E	1.6	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	3.0	9.0
ESE	1.3	.7	.7	.4	.1	.0	.0	.0	.0	.0	.0	3.2	6.2
SE	1.0	1.6	1.3	1.0	.3	.6	.0	.0	.0	.0	.0	5.8	9.5
SSE	.7	1.9	.7	1.3	.4	.1	.0	.0	.0	.0	.0	5.1	8.9
S	.6	1.1	1.4	1.2	.7	.1	.0	.0	.0	.0	.0	5.1	9.9
SSW	.4	1.1	.7	.8	.2	.0	.0	.0	.0	.0	.0	3.2	8.1
SW	1.1	1.2	.8	.7	.2	.0	.0	.0	.0	.0	.0	4.1	6.8
WSW	.2	1.7	.8	.3	.1	.0	.0	.0	.0	.0	.0	3.1	6.7
W	1.6	3.4	2.9	1.3	.2	.1	.0	.0	.0	.0	.0	9.5	7.3
NNW	1.0	1.7	1.3	1.3	.1	.0	.0	.0	.0	.0	.0	5.4	7.7
NN	2.2	3.4	2.3	1.3	.3	.0	.0	.0	.0	.0	.0	9.6	6.9
NNN	3.1	4.7	2.1	1.4	.2	.0	.0	.0	.0	.0	.0	11.5	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.5	0.0
ALL	20.4	30.0	17.5	12.5	3.1	.9	.0	.0	.0	.0	.0	100.0	5.9

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	31	4	-	61	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
																%	WIND SPEED
N	2.2	3.3	2.0	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	6.6
NNE	.8	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.2
NE	.5	.3	.2	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	5.7
ENE	.3	.3	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.3
E	1.0	1.5	.6	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	5.2
ESE	1.0	1.7	1.2	.4	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	4.5	6.9
SE	1.1	2.1	1.6	.6	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	7.4	9.5
SSE	.9	1.8	1.2	1.3	.5	.3	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	5.9	9.4
S	1.5	2.5	1.3	1.3	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	7.7
SSW	.9	1.0	.8	.8	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	7.6
SW	.9	1.1	.7	.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	6.9
WSW	.6	1.4	1.1	.6	.2	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	4.0	7.7
W	1.3	3.3	3.8	1.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.9	8.1
WNW	.9	2.0	2.4	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	7.8
NNW	1.5	3.3	3.0	1.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	6.9
NNW	1.4	3.4	2.6	1.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	7.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.1	0.1
CLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.1	0.0
ALL	16.9	29.7	23.1	13.4	3.4	1.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	100.0	6.6

TOTAL NO. OF OBS : 7227

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1255-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2						
UNLIMIT	34.8	53.8	54.9	56.3	57.2	57.5	57.7	57.7	57.8	57.8	57.8	57.8	57.8
>=20000	36.1	56.6	57.8	59.3	60.2	60.4	60.6	60.6	60.7	60.7	60.7	60.7	60.7
>=18000	36.3	56.9	58.1	59.7	60.6	60.8	61.1	61.1	61.2	61.2	61.2	61.2	61.2
>=16000	36.6	57.2	58.5	60.0	60.9	61.2	61.4	61.4	61.5	61.5	61.5	61.5	61.5
>=14000	37.3	58.5	59.7	61.4	62.3	62.5	62.7	62.7	62.9	62.9	62.9	62.9	62.9
>=12000	38.4	60.0	61.5	63.2	64.1	64.3	64.6	64.6	64.8	64.8	64.8	64.8	64.8
>=10000	38.9	61.2	62.7	64.5	65.4	65.7	66.0	66.0	66.1	66.1	66.1	66.1	66.1
>= 9000	38.9	61.3	62.9	64.6	65.5	65.8	66.1	66.1	66.2	66.2	66.2	66.2	66.2
>= 8000	40.1	63.2	64.9	66.2	67.8	68.0	68.4	68.4	68.5	68.5	68.5	68.5	68.5
>= 7000	41.2	64.4	66.1	68.1	69.0	69.2	69.6	69.6	69.7	69.7	69.7	69.7	69.7
>= 6000	41.8	65.2	66.9	68.9	69.8	70.0	70.4	70.4	70.5	70.5	70.5	70.5	70.5
>= 5000	42.9	67.3	69.0	71.0	71.9	72.2	72.5	72.5	72.6	72.6	72.6	72.6	72.6
>= 4500	43.2	68.4	70.0	72.1	73.0	73.2	73.5	73.5	73.6	73.6	73.6	73.6	73.6
>= 4000	43.9	69.8	71.6	73.6	74.5	74.7	75.1	75.1	75.2	75.2	75.2	75.2	75.2
>= 3500	44.7	70.9	72.7	74.9	75.8	76.0	76.3	76.3	76.4	76.4	76.4	76.4	76.4
>= 3000	46.0	73.5	75.4	77.7	78.6	78.8	79.1	79.1	79.2	79.2	79.2	79.2	79.2
>= 2500	47.6	76.0	78.0	80.6	81.5	81.7	82.0	82.0	82.2	82.2	82.2	82.2	82.2
>= 2000	49.7	79.0	81.0	84.1	85.1	85.3	85.6	85.6	85.7	85.7	85.7	85.7	85.7
>= 1800	50.2	80.0	82.3	85.2	86.2	86.4	86.8	86.8	86.9	86.9	86.9	86.9	86.9
>= 1500	51.5	82.9	85.3	88.4	89.5	89.7	90.0	90.0	90.1	90.1	90.1	90.1	90.1
>= 1200	52.3	84.4	87.2	90.5	91.5	91.7	92.0	92.1	92.3	92.4	92.4	92.4	92.4
>= 1000	52.4	85.2	88.2	91.5	92.5	92.7	93.0	93.2	93.3	93.4	93.4	93.4	93.4
>= 900	52.4	85.5	88.6	92.0	93.0	93.3	93.6	93.7	93.7	93.8	93.9	93.9	93.9
>= 800	52.5	86.0	89.0	92.6	93.6	93.8	94.2	94.3	94.3	94.4	94.5	94.5	94.5
>= 700	52.6	86.5	89.6	93.3	94.3	94.5	94.8	94.9	94.9	95.0	95.4	95.4	95.4
>= 600	52.7	87.3	90.5	94.3	95.5	95.7	96.2	96.3	96.3	96.6	96.7	96.7	96.7
>= 500	52.7	87.5	90.8	94.9	96.3	96.5	97.0	97.2	97.5	97.6	97.6	97.6	97.6
>= 400	52.7	87.7	90.9	95.1	96.6	97.0	97.4	97.6	98.0	98.2	98.2	98.2	98.2
>= 300	52.7	87.7	90.9	95.1	96.7	97.1	97.6	98.0	98.3	98.5	98.7	98.7	98.7
>= 200	52.7	87.7	90.9	95.1	96.9	97.3	97.9	98.2	98.5	98.8	98.9	98.9	98.9
>= 100	52.7	87.7	90.9	95.1	96.9	97.3	98.0	98.3	98.7	98.9	99.0	99.0	99.0
>= 0	52.7	87.7	90.9	95.1	96.9	97.3	98.0	98.3	98.7	98.9	99.1	99.1	99.1

TOTAL NO. OF OBS : 891

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)								>=1/4	>=1/2	>=5/16	>=1/4	>=1/2
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8					
UNLIMIT	30.5	44.9	47.1	49.2	50.2	50.3	50.6	50.7	50.7	50.8	51.0	51.0	51.0	51.0	51.0	51.0	51.0
>=20000	31.6	47.5	49.9	52.0	53.0	53.1	53.4	53.5	52.5	53.7	53.8	53.8	53.8	53.8	53.8	53.8	53.8
>=18000	31.6	47.6	50.1	52.1	53.2	53.3	53.7	53.7	53.8	53.9	54.0	54.0	54.0	54.0	54.0	54.0	54.0
>=16000	31.6	47.6	50.1	52.1	53.2	53.3	53.7	53.7	53.8	53.9	54.0	54.0	54.0	54.0	54.0	54.0	54.0
>=14000	32.7	49.0	51.6	53.9	55.0	55.1	55.5	55.6	55.6	55.7	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>=12000	33.3	49.9	52.8	55.0	56.1	56.2	56.6	56.7	56.7	56.8	56.9	56.9	56.9	56.9	56.9	56.9	56.9
>=10000	34.8	52.8	55.6	57.8	59.2	59.3	59.7	59.8	59.8	59.8	60.1	60.1	60.1	60.1	60.1	60.1	60.1
>=9000	34.9	53.1	55.9	58.2	59.5	59.6	60.1	60.2	60.2	60.3	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>=8000	35.5	54.4	57.5	59.8	61.2	61.4	61.9	62.0	62.0	62.1	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>=7000	36.1	55.2	58.3	60.6	62.1	62.3	62.8	62.9	62.9	63.0	63.1	63.1	63.1	63.1	63.1	63.1	63.1
>=6000	36.3	55.7	58.7	61.1	62.5	62.8	63.2	63.3	63.3	63.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6
>=5000	37.5	57.5	60.5	62.9	64.3	64.6	65.0	65.1	65.1	65.2	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>=4500	38.5	59.3	62.3	64.7	66.1	66.4	66.8	66.9	66.9	67.0	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>=4000	39.1	60.6	63.7	66.0	67.6	67.8	68.3	68.4	68.4	68.5	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>=3500	39.8	61.6	64.9	67.4	68.8	69.1	69.5	69.6	69.6	69.7	69.9	69.9	69.9	69.9	69.9	69.9	69.9
>=3000	40.9	63.9	67.2	69.5	71.2	71.4	71.9	72.0	72.0	72.1	72.2	72.2	72.2	72.2	72.2	72.2	72.2
>=2500	42.6	66.3	69.5	72.0	73.7	73.9	74.5	74.6	74.6	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=2000	45.3	71.4	74.9	77.8	79.5	79.8	80.4	80.4	80.4	80.5	80.7	80.7	80.7	80.7	80.7	80.7	80.7
>=1800	45.7	72.4	75.9	78.9	80.7	80.9	81.4	81.6	81.6	81.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8
>=1500	47.1	75.3	79.1	82.1	84.3	84.5	85.2	85.3	85.3	85.4	85.5	85.5	85.5	85.5	85.5	85.5	85.5
>=1200	47.8	76.6	80.8	83.8	85.2	86.3	87.0	87.1	87.1	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>=1000	48.5	78.7	83.5	86.8	89.1	89.4	90.1	90.2	90.2	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=900	48.6	79.1	83.3	87.3	89.7	90.0	90.7	90.9	90.9	90.9	91.1	91.2	91.2	91.2	91.2	91.2	91.2
>=800	48.9	79.8	84.5	88.0	90.3	90.7	91.3	91.6	91.6	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=700	49.0	80.1	84.8	88.3	90.7	91.0	91.7	92.0	92.0	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>=600	49.3	80.9	85.9	89.9	92.2	92.6	93.3	93.8	93.8	94.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3
>=500	49.3	81.2	86.6	93.0	93.5	94.5	95.1	95.5	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=400	49.3	81.2	86.8	93.6	94.0	94.1	95.7	95.7	95.7	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=300	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>=200	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=100	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=0	49.3	81.3	87.0	91.1	93.8	94.3	95.4	96.2	96.2	96.9	97.1	97.1	97.1	97.1	97.1	97.1	97.1

TOTAL NO. OF OBS : 889

2 - CEILING VS VISIBILITY

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : FEB HOUR : 0700 LST

TOTAL NO. OF OBS. : 889

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB.  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	VISIBILITY (STATUTE MILES)								>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=50	
				>=3	>=2 1/2	>=2	>=1 1/2	>=1	1/4	>=1	>=1/4							
UNLIMIT	27.7	34.6	37.4	40.1	42.6	43.7	44.8	45.4	45.6	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
>=20000	25.1	37.2	40.5	43.5	46.1	47.5	48.6	49.3	49.4	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>=18000	25.2	-	37.6	41.0	44.0	46.7	48.1	49.2	49.9	50.0	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
>=16000	25.2	-	37.6	41.0	44.1	46.8	48.2	49.4	50.1	50.2	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7
>=14000	25.4	38.5	42.0	45.8	48.6	50.1	51.4	52.1	52.2	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
>=12000	26.0	40.1	43.7	47.5	50.7	52.2	53.8	54.4	54.6	54.6	55.1	55.2	55.2	55.2	55.2	55.2	55.2	55.2
>=10000	26.5	41.5	45.2	49.5	52.7	54.2	55.8	56.5	56.5	56.7	57.3	57.4	57.4	57.4	57.4	57.4	57.4	57.4
>= 9000	26.9	42.1	45.9	50.2	53.4	54.9	56.5	57.2	57.4	58.0	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.1
>= 8000	27.8	44.1	48.1	52.5	55.7	57.2	58.8	59.5	59.5	59.7	60.3	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>= 7000	28.1	44.5	48.6	53.2	56.5	58.1	59.7	60.4	60.4	60.6	61.2	61.4	61.4	61.4	61.4	61.4	61.4	61.4
>= 6000	28.5	44.9	49.1	53.6	56.9	58.5	60.1	60.8	60.8	61.0	61.6	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>= 5000	29.5	47.3	51.5	56.2	59.8	61.4	63.0	63.7	63.7	63.9	64.5	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>= 4500	30.0	48.1	52.4	57.1	60.8	62.4	64.0	64.7	64.7	64.9	65.5	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 4000	30.5	49.2	53.0	58.4	62.2	63.3	65.4	66.2	66.2	66.5	67.1	67.3	67.3	67.3	67.3	67.3	67.3	67.3
>= 3500	31.1	50.1	54.4	59.3	63.1	64.7	66.3	67.1	67.4	68.0	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>= 3000	32.1	52.1	56.6	61.6	65.7	67.4	69.0	69.8	70.2	70.8	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>= 2500	33.7	54.8	59.7	65.0	69.1	71.1	72.6	73.3	73.8	74.5	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>= 2000	35.1	58.1	63.2	68.9	73.2	75.2	76.8	77.6	78.7	78.7	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>= 1800	35.3	59.1	64.4	70.0	74.4	76.4	78.1	78.9	79.4	80.1	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>= 1500	36.0	62.2	67.8	73.8	78.7	80.9	82.8	83.6	84.1	84.7	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
>= 1200	36.2	63.4	69.2	75.9	80.8	82.9	85.1	86.1	86.6	87.2	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
>= 1000	36.3	64.4	70.8	77.8	82.9	85.2	88.5	89.5	89.5	89.7	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
>= 900	36.3	64.7	71.3	78.4	83.5	85.8	88.4	89.4	89.4	89.7	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>= 800	36.4	64.8	71.6	78.6	84.3	86.6	89.3	90.3	90.3	90.8	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>= 700	36.4	64.9	71.8	78.9	84.7	87.0	89.7	91.0	91.0	91.5	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
>= 600	36.4	65.0	71.9	79.2	85.2	87.6	90.3	91.9	91.9	92.4	93.3	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>= 500	36.4	65.0	72.0	79.3	85.4	87.8	90.8	92.4	92.4	92.9	94.1	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>= 400	36.4	65.0	72.1	79.4	85.5	88.0	91.1	92.9	92.9	93.6	95.1	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 300	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.2	93.2	93.8	95.6	96.5	96.5	96.5	96.5	96.5	96.5	96.5
>= 200	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	93.3	94.0	95.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>= 100	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	93.3	94.0	96.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>= 0	36.4	65.0	72.1	79.5	85.6	88.2	91.2	93.3	93.3	94.0	96.0	97.3	97.3	97.3	97.3	97.3	97.3	97.3

TOTAL NO. OF OBS. :

678

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	26.3	38.6	42.1	44.3	46.6	50.1	50.8	51.1	51.5	51.6
>=20000	27.8	42.6	46.6	49.2	54.1	55.7	56.5	57.1	57.4	57.6
>=18000	28.1	43.5	47.5	50.1	55.1	56.8	57.7	58.2	58.6	58.7
>=16000	28.4	43.9	47.9	50.6	55.6	57.2	58.1	58.7	59.0	59.2
>=14000	28.9	45.8	50.2	52.9	58.0	60.0	60.9	61.4	61.8	61.9
>=12000	29.4	47.3	52.3	55.3	60.6	62.6	63.5	64.1	64.4	64.5
>=10000	30.3	48.5	53.7	56.9	62.6	64.5	65.7	66.2	66.6	66.7
>=9000	30.5	49.0	54.1	57.6	63.3	65.2	66.4	66.9	67.3	67.4
>=8000	31.1	50.3	55.6	59.3	65.0	67.0	68.2	68.8	69.1	69.2
>=7000	31.1	50.6	56.1	59.7	65.6	67.7	68.9	69.5	69.8	70.0
>=6000	31.2	50.9	56.4	60.1	65.9	68.1	69.2	69.8	70.1	70.4
>=5000	32.2	52.3	57.9	61.8	67.6	69.9	71.1	71.6	72.0	72.1
>=4500	33.0	53.2	59.0	63.2	69.1	71.4	72.5	73.1	73.5	73.7
>=4000	33.6	54.3	60.4	64.6	70.8	73.1	74.3	74.8	75.2	75.4
>=3500	34.4	55.8	62.0	66.4	72.7	74.9	76.1	76.7	77.0	77.1
>=3000	35.7	58.2	64.4	68.0	75.1	77.3	78.5	79.1	79.4	79.6
>=2500	38.1	61.8	68.3	72.9	79.3	81.6	82.7	83.3	83.6	83.9
>=2000	40.3	65.4	72.4	77.2	83.9	86.3	87.6	88.3	88.8	89.0
>=1800	40.7	66.5	73.6	78.4	85.0	87.4	88.9	89.6	89.9	90.2
>=1500	41.6	68.4	76.0	81.1	87.8	90.3	91.9	92.6	93.1	93.5
>=1200	41.8	69.5	77.6	82.7	89.4	91.9	92.5	94.3	94.9	95.2
>=1000	41.9	70.4	78.6	84.3	91.2	93.7	95.4	96.2	96.8	97.0
>=900	41.9	70.4	78.6	84.3	91.4	93.9	95.9	96.7	97.3	97.5
>=800	41.9	70.4	78.7	84.6	91.8	94.3	96.3	97.3	97.4	98.1
>=700	41.9	70.5	78.5	84.8	92.2	94.7	96.8	97.7	98.5	98.7
>=600	41.9	70.5	78.9	84.9	92.2	94.9	96.9	97.0	97.8	98.0
>=500	41.9	70.5	78.9	84.9	92.3	95.0	97.0	97.3	98.4	99.2
>=400	41.9	70.5	78.9	84.9	92.3	95.0	97.0	97.3	98.5	99.3
>=300	41.9	70.5	78.9	84.9	92.3	95.0	97.0	97.3	98.5	99.3
>=200	41.9	70.5	78.9	84.9	92.3	95.0	97.3	97.4	98.5	99.3
>=100	41.9	70.5	78.9	84.9	92.3	95.0	97.3	97.4	98.5	99.3
>=0	41.9	70.5	78.9	84.9	92.3	95.0	97.3	97.4	98.5	99.3

TOTAL NO. OF OBS : 874

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4					
UNLIMIT	30.6	44.8	47.2	49.9	52.1	52.1	52.3	52.3	52.4	52.4	52.4	52.4	52.4	52.4	52.4
>=20000	33.5	50.6	53.4	56.3	58.5	58.5	58.8	58.8	59.0	59.0	59.0	59.0	59.0	59.0	59.0
>=18000	33.6	51.4	54.2	57.2	59.4	59.4	59.8	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9
>=16000	34.0	51.9	54.8	57.8	60.0	60.0	60.3	60.3	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>=14000	35.7	55.1	58.5	61.7	64.1	64.1	64.4	64.4	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=12000	36.9	57.3	60.8	64.1	66.5	66.5	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0
>=10000	37.9	59.8	63.6	66.9	69.4	69.4	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=9000	38.1	60.5	64.4	67.7	70.1	70.2	70.7	70.7	70.8	70.8	70.8	70.8	70.8	70.8	70.8
>=8000	39.1	62.6	66.6	70.0	72.4	72.7	73.1	73.1	73.3	73.3	73.3	73.3	73.3	73.3	73.3
>=7000	39.7	64.1	68.3	71.6	74.1	74.3	74.8	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>=6000	40.3	65.0	69.2	72.6	75.1	75.3	75.8	75.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9
>=5000	41.3	66.4	70.7	74.1	76.6	76.9	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=4500	41.5	67.0	71.3	74.7	77.2	77.4	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=4000	42.0	68.5	72.9	76.4	79.0	79.3	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=3500	42.7	69.5	74.1	77.6	80.1	80.5	81.0	81.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=3000	43.7	71.0	75.6	79.4	82.0	82.3	83.0	83.0	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>=2500	45.2	74.0	78.8	83.1	85.8	86.2	86.9	86.9	87.1	87.1	87.1	87.1	87.1	87.1	87.1
>=2000	46.5	76.3	81.6	86.2	89.0	89.4	90.3	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=1800	46.6	76.9	82.3	86.9	89.8	90.2	91.2	91.2	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>=1500	47.0	78.7	84.4	89.0	92.0	92.4	93.4	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8
>=1200	47.1	79.7	85.5	90.1	93.1	93.7	94.9	95.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>=1000	47.2	80.6	86.6	91.4	94.4	95.2	96.5	96.7	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=900	47.3	80.7	86.9	91.9	95.0	95.9	97.3	97.6	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=800	47.3	81.0	87.2	92.2	95.7	96.6	98.0	98.4	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>=700	47.3	81.2	87.3	92.4	96.0	97.0	98.4	98.7	99.2	99.2	99.3	99.3	99.3	99.3	99.3
>=600	47.3	81.3	87.4	92.6	96.2	97.2	98.6	99.1	99.5	99.5	99.7	99.7	99.7	99.7	99.7
>=500	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0
>=400	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0
>=300	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0
>=200	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0
>=100	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0
>=0	47.3	81.3	87.4	92.6	96.2	97.2	98.7	99.2	99.2	99.2	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 860

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						VISIBILITY (STATUTE MILES)								
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	34.7	52.2	53.7	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>=20000	37.7	58.3	60.0	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=18000	38.1	59.1	60.9	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=16000	38.7	59.7	61.6	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>=14000	40.0	62.4	64.4	64.9	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=12000	42.0	65.1	67.0	67.7	67.9	67.9	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
>=10000	42.8	67.4	69.4	70.2	70.4	70.4	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=9000	43.4	68.4	70.4	71.2	71.5	71.5	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>=8000	44.1	69.9	72.2	72.8	73.0	73.2	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>=7000	44.4	70.7	73.0	73.8	74.0	74.0	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=6000	44.6	71.0	73.4	74.2	74.5	74.5	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=5000	45.9	73.4	75.8	76.7	77.1	77.1	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=4500	46.2	74.5	77.0	77.9	78.2	78.2	78.5	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>=4000	47.2	76.2	78.7	79.6	80.0	80.0	80.2	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>=3500	48.1	77.3	79.8	80.8	81.1	81.1	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4
>=3000	49.8	79.4	82.2	83.2	83.6	83.6	83.8	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=2500	51.1	82.4	84.9	85.8	86.4	86.4	86.4	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
>=2000	52.2	85.1	87.9	88.9	89.5	89.5	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>=1800	52.6	85.9	88.8	89.8	90.4	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=1500	53.3	88.0	91.2	92.6	93.4	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>=1200	53.7	89.8	93.0	94.5	95.5	95.5	95.8	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>=1000	53.7	90.4	94.3	96.0	97.0	97.0	97.3	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
>=900	53.7	90.8	94.7	96.4	97.5	97.6	97.9	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=800	53.8	91.2	95.2	97.1	98.2	98.3	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>=700	53.8	91.3	95.3	97.3	98.3	98.4	98.7	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=600	53.8	91.5	95.6	97.6	98.6	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=500	53.8	91.5	95.6	97.6	98.6	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=400	53.8	91.5	95.6	97.7	98.7	99.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	54.0	91.6	95.8	97.8	98.9	99.1	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	54.0	91.6	95.8	97.8	98.9	99.1	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=100	54.0	91.6	95.8	97.8	98.9	99.1	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0	54.0	91.6	95.8	97.8	98.9	99.1	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 873

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	36.9	55.0	56.3	57.1	57.2	57.2	57.3	57.3	57.3	57.3
>=20000	38.9	58.9	60.3	61.1	61.2	61.2	61.4	61.4	61.4	61.4
>=18000	32.1	59.5	61.0	61.8	62.0	62.0	62.1	62.1	62.1	62.1
>=16000	39.2	60.0	61.5	62.3	62.5	62.5	62.6	62.6	62.6	62.6
>=14000	40.1	61.8	63.4	64.2	64.4	64.4	64.5	64.5	64.5	64.5
>=12000	41.8	64.1	65.9	66.7	66.9	66.9	67.0	67.1	67.1	67.1
>=10000	43.3	66.0	68.0	68.8	69.0	69.0	69.2	69.3	69.3	69.3
>= 9000	43.5	66.4	68.5	69.3	69.5	69.5	69.6	69.7	69.7	69.7
>= 8000	44.6	68.8	71.0	71.9	72.1	72.1	72.2	72.3	72.3	72.3
>= 7000	45.4	70.1	72.2	73.1	73.3	73.3	73.4	73.6	73.6	73.6
>= 6000	45.8	71.0	73.1	74.0	74.2	74.2	74.4	74.5	74.5	74.5
>= 5000	47.1	72.7	74.9	75.9	76.2	76.2	76.3	76.4	76.4	76.4
>= 4500	47.8	74.0	76.3	77.3	77.5	77.5	77.6	77.7	77.7	77.7
>= 4000	48.6	75.1	77.5	78.5	78.8	78.8	78.9	79.0	79.0	79.0
>= 3500	49.8	76.7	79.1	80.1	80.1	80.1	80.5	80.6	80.6	80.6
>= 3000	51.0	79.4	82.0	83.2	83.4	83.4	83.6	83.7	83.7	83.7
>= 2500	52.4	81.9	84.7	86.0	86.2	86.2	86.4	86.6	86.6	86.6
>= 2000	54.2	84.6	87.7	89.0	89.3	89.3	89.5	89.6	89.6	89.6
>= 1800	54.4	85.4	88.5	89.8	90.1	90.1	90.3	90.4	90.4	90.4
>= 1500	55.8	87.9	91.2	92.5	92.8	92.8	93.1	93.2	93.3	93.3
>= 1200	56.2	89.8	93.2	94.9	95.3	95.3	95.6	95.8	95.9	95.9
>= 1000	56.4	90.4	93.8	95.5	95.8	95.8	96.3	96.5	96.6	96.6
>= 900	56.5	91.0	94.5	96.2	96.5	96.5	97.1	97.3	97.4	97.4
>= 800	56.5	91.2	94.8	96.6	97.1	97.2	97.6	97.9	98.0	98.0
>= 700	56.5	91.6	95.5	97.5	98.1	98.2	98.6	98.9	99.0	99.0
>= 600	56.5	91.8	95.6	97.6	98.4	98.5	99.0	99.2	99.3	99.3
>= 500	56.5	92.0	95.8	97.9	98.6	98.6	99.2	99.4	99.5	99.5
>= 400	56.5	92.1	95.9	98.1	98.9	98.9	99.5	99.8	99.9	99.9
>= 300	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0
>= 200	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0
>= 100	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0
>= 0	56.5	92.1	95.9	98.1	98.9	99.2	99.7	99.9	100.0	100.0

TOTAL NO. OF OBS : 885

RECORDED BY AUTOMATIC DATA PROCESSOR

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)														
	>=10	>=6.	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMITED	30.0	44.8	47.0	48.8	50.5	50.9	51.4	51.6	51.8	51.8	51.9	51.9	51.9	52.0	52.0
>=20000	31.8	48.5	51.0	53.0	54.7	55.2	55.7	56.0	56.2	56.2	56.2	56.3	56.3	56.4	56.4
>=18000	32.0	49.0	51.5	53.6	55.4	55.9	56.4	56.7	56.8	56.8	56.9	56.9	56.9	57.0	57.0
>=16000	32.2	49.3	51.9	53.9	55.7	56.3	56.8	57.0	57.1	57.3	57.3	57.3	57.3	57.4	57.4
>=14000	33.1	51.1	53.9	56.1	57.9	58.5	59.1	59.3	59.5	59.6	59.6	59.6	59.6	59.6	59.7
>=12000	34.1	52.9	55.9	58.1	60.2	60.7	61.4	61.6	61.8	61.9	61.9	61.9	61.9	62.1	62.1
>=10000	35.1	54.8	58.0	60.4	62.5	63.1	63.8	64.1	64.3	64.4	64.4	64.4	64.4	64.5	64.5
>=9000	35.3	55.3	58.5	60.9	63.0	63.6	64.3	64.6	64.8	64.9	64.9	64.9	64.9	65.0	65.1
>=8000	36.2	57.2	60.5	63.1	65.2	65.8	66.6	66.8	66.9	67.0	67.1	67.1	67.2	67.2	67.3
>=7000	36.7	58.0	61.5	64.1	66.2	66.9	67.6	67.9	68.1	68.2	68.2	68.2	68.3	68.4	68.4
>=6000	37.0	58.6	62.0	64.6	66.8	67.5	68.2	68.5	68.7	68.8	68.8	68.8	68.8	68.9	68.9
>=5000	38.1	60.3	63.8	66.5	68.7	69.4	70.2	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=4500	38.6	61.4	65.0	67.8	70.0	70.7	71.4	71.7	71.8	71.8	72.0	72.0	72.0	72.1	72.2
>=4000	39.4	62.8	66.4	69.2	71.5	72.2	73.0	73.3	73.5	73.5	73.6	73.6	73.6	73.7	73.8
>=3500	40.1	64.0	67.7	70.5	72.2	73.6	74.3	74.6	74.7	74.9	75.0	75.0	75.0	75.1	75.1
>=3000	41.4	66.3	70.1	73.1	75.5	76.2	77.0	77.3	77.4	77.6	77.6	77.7	77.7	77.8	77.8
>=2500	43.0	69.1	73.2	76.3	78.8	79.6	80.4	80.7	80.8	81.0	81.1	81.1	81.1	81.2	81.2
>=2000	44.7	72.3	76.7	80.0	82.7	83.5	84.4	84.7	84.8	85.0	85.1	85.1	85.1	85.2	85.3
>=1800	45.0	73.2	77.7	81.1	83.5	84.6	85.5	85.9	86.1	86.2	86.2	86.3	86.3	86.4	86.4
>=1500	45.9	75.6	80.4	84.1	86.1	87.8	88.8	89.2	89.5	89.6	89.6	89.7	89.7	89.8	89.8
>=1200	46.3	77.0	82.1	85.9	88.9	90.8	91.3	91.4	91.6	91.7	91.7	91.8	91.8	91.9	91.9
>=1000	46.5	78.1	83.5	87.6	90.7	91.7	92.8	93.3	93.6	93.7	93.8	93.8	93.8	93.9	93.9
>=900	46.5	78.4	83.9	88.1	91.2	92.2	93.4	93.9	94.0	94.3	94.4	94.4	94.5	94.5	94.6
>=800	46.6	78.7	84.3	88.5	91.8	92.8	94.1	94.6	94.7	95.1	95.2	95.2	95.3	95.4	95.4
>=700	46.6	79.0	84.6	89.0	92.3	93.4	94.6	95.2	95.3	95.7	95.8	95.9	95.9	96.0	96.0
>=600	46.7	79.3	85.0	89.5	93.0	94.1	95.4	96.1	96.1	96.7	96.7	96.8	96.8	96.9	96.9
>=500	46.7	79.5	85.2	89.8	93.3	94.4	95.9	96.6	96.6	97.2	97.3	97.4	97.4	97.5	97.5
>=400	46.7	79.5	85.3	89.9	93.5	94.7	96.2	96.9	97.0	97.6	97.8	97.9	97.9	98.0	98.0
>=300	46.7	79.5	85.3	90.0	93.6	94.8	96.3	97.1	97.2	97.9	98.2	98.2	98.3	98.5	98.5
>=200	46.7	79.5	85.3	90.0	93.6	94.9	96.3	97.2	97.3	98.0	98.3	98.4	98.5	98.6	98.6
>=100	46.7	79.5	85.3	90.0	93.6	94.9	96.4	97.2	97.3	98.1	98.4	98.6	98.6	99.3	99.3
>=0	46.7	79.5	85.3	90.0	93.6	94.9	96.4	97.2	97.3	98.1	98.4	98.6	98.6	99.0	100.0

TOTAL NO. OF OBS : 7039

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR. PT.	DIR. L.	SPEED (KNOTS)										>=56 1	TOTAL 1	MEAN 1
		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	1.3	2.9	1.9	.9	.2	.0	.0	.0	.0	.0	.0	7.3	6.9	
NNE	.9	.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	2.1	5.5	
NE	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.3	
ENE	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	3.1	
E	2.0	2.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	4.2	3.9	
ESE	1.3	2.6	.9	.4	.2	.0	.0	.0	.0	.0	.0	5.4	5.9	
SE	1.3	1.6	1.3	.7	.3	.2	.0	.0	.0	.0	.0	5.4	7.6	
SSE	.8	1.1	.9	.7	.4	.2	.0	.0	.0	.0	.0	4.1	8.6	
S	.6	1.1	1.9	1.4	.3	.1	.0	.0	.0	.0	.0	5.6	8.7	
SSW	.7	1.6	1.1	.7	.2	.0	.0	.0	.0	.0	.0	4.3	7.5	
SW	1.0	1.9	.7	.4	.2	.0	.0	.0	.0	.0	.0	4.2	6.3	
WSW	.4	1.3	2.9	.6	.1	.0	.0	.0	.0	.0	.0	5.3	7.7	
W	1.4	4.0	5.9	2.4	.7	.0	.0	.0	.0	.0	.0	14.5	8.2	
NNW	1.2	2.5	2.4	1.7	.2	.0	.0	.0	.0	.0	.0	8.1	7.6	
NW	1.4	2.1	2.4	1.8	.2	.0	.0	.0	.0	.0	.0	8.0	7.9	
NNW	.7	2.3	1.7	1.5	.2	.0	.0	.0	.0	.0	.0	6.5	8.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	
CLW	16.5	28.9	25.0	13.6	3.3	.5	.0	.0	.0	.0	.0	12.1	0.0	
ALL												100.0	6.4	

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55			
N	1.9	2.5	3.0	1.4	.4	.0	.0	.0	.0	.0	.0	0.0	9.3	7.3
NNE	1.1	.8	.5	.4	.1	.0	.0	.0	.0	.0	.0	0.0	2.9	6.2
NE	.6	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	0.0	1.0	4.9
ENE	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	.8	3.4
E	2.4	3.3	1.4	.1	.0	.0	.0	.0	.0	.0	.0	0.0	7.0	4.7
ESE	2.1	3.5	1.7	.2	.0	.0	.0	.0	.0	.0	.0	0.0	7.8	5.5
SE	1.5	2.4	2.1	1.4	.3	.1	.0	.0	.0	.0	.0	0.0	7.9	7.8
SSE	.4	.9	1.3	1.0	.2	.1	.0	.0	.0	.0	.0	0.0	3.9	9.2
S	1.2	1.5	1.9	.8	.2	.2	.0	.0	.0	.0	.0	0.0	5.8	7.9
SSW	.3	.8	.7	.2	.2	.0	.0	.0	.0	.0	.0	0.0	2.2	8.1
SW	.9	2.6	1.7	.5	.0	.0	.0	.0	.0	.0	.0	0.0	5.7	6.2
WSW	.7	2.2	1.5	.7	.0	.0	.0	.0	.0	.0	.0	0.0	5.1	6.8
W	1.4	2.6	3.1	1.9	.1	.0	.0	.0	.0	.0	.0	0.0	9.2	7.7
WNW	.6	2.5	2.1	1.2	.1	.2	.0	.0	.0	.0	.0	0.0	6.8	8.2
NNW	1.1	1.9	1.5	2.4	.2	.0	.0	.0	.0	.0	.0	0.0	7.2	8.6
NNW	1.0	2.1	1.7	1.6	.1	.1	.0	.0	.0	.0	.0	0.0	6.7	7.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	10.8	0.0
ALL	17.7	30.4	24.1	14.1	2.1	.7	.0	.0	.0	.0	.0	0.0	100.0	6.4

TOTAL NO. OF OBS : 692

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH: MAR  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN
	16 PT.	1 - 31	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	> 56	
	%	%	%	%	%	%	%	%	%	%	%	%
N	2.4	3.1	3.0	8	.1	.0	.0	.0	.0	.0	.0	9.5
NNE	.0	1.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	2.6
NE	1.0	.5	.1	.2	.0	.0	.0	.0	.0	.0	.0	4.2
ENE	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	4.7
E	2.1	2.9	.7	.1	.1	.0	.0	.0	.0	.0	.0	5.9
ESE	1.7	5.1	2.3	1.0	.3	.0	.0	.0	.0	.0	.0	10.5
SE	1.6	3.3	2.5	2.2	.0	.3	.1	.0	.0	.0	.0	7.8
SSE	.4	.7	1.4	.8	.1	.1	.0	.0	.0	.0	.0	3.5
S	1.1	1.3	1.3	1.4	.1	.0	.0	.0	.0	.0	.0	5.3
SSW	.4	1.1	.5	.3	.1	.0	.0	.0	.0	.0	.0	2.4
SSE	.5	1.7	1.1	.6	.0	.0	.0	.0	.0	.0	.0	6.6
WSW	.7	1.8	1.5	.7	.0	.0	.0	.0	.0	.0	.0	7.2
W	.9	2.2	2.4	1.1	.3	.0	.0	.0	.0	.0	.0	6.7
WNW	.6	1.2	1.1	1.8	.2	.0	.0	.0	.0	.0	.0	7.8
NW	.9	.7	.9	1.5	.3	.0	.0	.0	.0	.0	.0	4.9
NNW	1.3	1.7	2.3	2.3	.3	.1	.0	.0	.0	.0	.0	8.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	16.8	29.1	22.1	15.0	1.9	.6	.1	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS).

DIR.	SPEED (KNOTS)						TOTAL %	MEAN WIND SPEED
	16-PT.	1-31	4-6	7-10	11-16	17-21		
N	.6	1.7	1.6	1.5	.2	.1	.0	8.8
NNE	.0	.2	.2	.5	.0	.0	.0	9.9
NE	1.1	.4	.2	.0	.0	.0	.0	9.9
ENE	.0	.2	.1	.0	.0	.0	.0	5.1
E	1.3	.3	.2	.1	.1	.0	.0	5.3
ESE	.1	.9	.7	.4	.0	.2	.0	7.5
SE	.7	2.4	3.4	2.2	.6	.2	.0	8.7
SSE	1.0	4.2	3.0	1.4	.6	.0	.0	9.7
S	3.5	5.6	1.7	1.0	.3	.1	.0	7.7
SSW	1.5	3.1	.9	.3	.1	.0	.0	12.4
SW	1.4	2.1	1.0	.4	.0	.0	.0	6.1
WSW	1.4	1.5	1.3	.8	.1	.0	.0	5.6
W	2.0	2.1	2.3	1.9	.4	.0	.0	6.6
WNW	.8	2.1	1.6	1.2	.3	.0	.0	7.7
NNW	1.3	3.8	3.3	1.1	.6	.0	.0	7.8
NNW	.8	3.0	3.3	2.6	.1	.0	.0	7.6
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
CLW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	15.6	33.9	25.0	15.5	3.9	.7	.2	7.2

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 992

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1	-	31	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
DIR.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N	.1	.9	.6	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	9.7
NNE	.1	.1	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	11.4
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
ENE	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.0
E	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	6.0
ESE	.1	.4	.3	.3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.2	9.9
SE	.1	.3	.9	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	8.6
SSE	.6	1.8	1.0	1.1	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	9.7
S	1.2	3.5	1.2	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.3	7.3
SSW	.7	1.7	.9	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	8.4
SW	1.5	2.0	2.1	.9	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	7.5
WSW	1.1	3.4	3.7	2.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5	7.9
W	1.2	4.6	7.0	8.2	2.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23.8	10.3
WNW	.6	3.3	7.4	3.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.8	8.8
NW	.4	3.3	3.9	2.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.2	8.4
NNW	.2	1.6	2.2	1.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	9.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0.0
ALL	8.1	28.8	32.0	23.3	5.2	1.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	8.8

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>=56	TOTAL	MEAN
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21			
N	0	.4	.2	1.0	.1	.1	0	0	1.8
NNE	0	0	.3	.2	.1	.0	0	0	11.5
NE	0	.2	.2	.0	.0	.0	0	0	7.0
ENE	.1	.2	0	0	.0	.0	0	0	5.0
E	.2	0	0	.0	.0	.0	0	0	7.4
ESE	0	.1	.3	.2	.1	.1	0	0	8
SE	.2	.2	.3	.3	.1	.3	0	0	12.6
SSE	0	.9	.6	.1	.4	.0	0	0	9.1
S	.1	.9	1.3	1.6	.6	.2	0	0	4.7
SSW	.6	.8	.8	.8	.4	.0	0	0	3.4
SW	.5	.8	1.6	1.0	.0	.1	0	0	9.0
WSW	.4	1.0	4.0	3.1	.4	.1	0	0	4.0
W	.6	2.4	10.7	22.8	4.0	1.1	0	0	41.7
WNW	0	1.8	6.3	7.5	1.8	.4	0	0	17.8
NNW	1	1.9	3.8	1.2	.2	.1	0	0	7.4
NNW	1	1.3	1.5	.7	.3	.0	0	0	11.6
VAR	0	0	0	0	0	0	0	0	0
CLM	0	0	0	0	0	0	0	0	0
ALL	2.9	12.0	32.1	40.8	8.6	2.5	0	0	11.0

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR	SPEED (KNOTS)										>=56	TOTAL	MEAN					
	16	PI.	1	-	31	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	ALL
N	.8	1.2	.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	6.6
NNE	.3	.6	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	6.9
NE	.2	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	5.5
ENE	.4	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.4
E	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2	5.2
ESE	.2	.6	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	7.3
SE	.2	.2	.4	.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	14.6
SSE	.0	.0	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	12.8
S	.1	.4	1.7	1.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	11.2
SSW	.2	.4	2.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	9.4
SW	.1	.4	2.4	2.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	9.3
WSW	.7	1.7	4.4	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	8.6
W	.9	5.2	13.8	11.1	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32.9	10.0
WW	.8	4.6	8.6	5.1	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.9	9.5
WW	1.1	3.3	2.9	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	7.3
NNW	.6	1.5	1.0	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	8.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
CLH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	0
ALL	6.4	22.1	38.8	24.8	4.5	1.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	9.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>56	TOTAL	MEAN
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47			
N	.9	2.7	1.3	1.4	.1	.0	.0	.0	.0	.0	.0	.0	6.5
NNE	.2	1.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.7
NE	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8
ENE	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1
E	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0
ESE	.7	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.0
SE	.2	.9	.5	.8	.2	.1	.0	.0	.0	.0	.0	.0	2.3
SSE	.5	.8	1.3	.9	.2	.5	.0	.0	.0	.0	.0	.0	2.7
S	.3	1.0	1.5	1.3	.3	.1	.0	.0	.0	.0	.0	.0	10.4
SSW	.5	.5	1.6	.7	.0	.0	.0	.0	.0	.0	.0	.0	4.5
SW	.4	2.8	1.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	8.0
WSW	1.4	2.1	2.5	1.0	.3	.0	.0	.0	.0	.0	.0	.0	5.3
W	2.0	6.0	8.5	3.5	.7	.0	.0	.0	.0	.0	.0	.0	7.3
WNW	.8	3.1	3.4	2.3	.3	.1	.0	.0	.0	.0	.0	.0	20.7
NNW	1.7	3.6	2.4	2.6	.4	.0	.0	.0	.0	.0	.0	.0	8.0
NNW	1.4	3.4	2.5	1.7	.2	.0	.0	.0	.0	.0	.0	.0	10.8
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	12.2	29.9	28.5	17.3	2.8	.8	.0	.1	.0	.0	100.0	7.1	

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	1.0	1.9	1.5	1.1	.2	C*	.0	.0	.0	.0	.0	0	5.7	7.5
NNE	.4	.5	.4	.3	.1	.0	.0	.0	.0	.0	.0	0	1.7	6.8
NE	.4	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	0	.9	4.8
ENE	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	0	.7	4.5
E	1.0	1.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	0	2.7	4.8
ESE	.8	1.8	.9	.3	.1	D*	.0	.0	.0	.0	.0	0	3.9	6.6
SE	.7	1.6	1.4	1.1	.2	.0	.0	.0	.0	.0	.0	0	5.3	6.8
SSE	.5	1.3	1.2	.8	.3	.2	.0	.0	.0	.0	.0	0	4.3	6.0
S	1.0	1.9	1.6	1.2	.3	.1	D*	.0	.0	.0	.0	0	6.2	8.2
SSW	.6	1.3	1.1	.5	.2	D*	.0	.0	.0	.0	.0	0	3.7	7.7
SW	.8	1.8	1.5	.7	.1	D*	.0	.0	.0	.0	.0	0	4.9	7.1
WSW	.8	1.9	2.7	1.3	.1	D*	.0	.0	.0	.0	.0	0	6.9	7.9
W	1.3	3.7	6.7	6.6	1.3	.2	.0	.0	.0	.0	.0	0	19.8	9.8
NNW	.7	2.7	4.7	3.0	.5	.1	.0	.0	.0	.0	.0	0	11.0	9.2
NW	1.0	2.6	2.7	1.8	.3	C*	.0	.0	.0	.0	.0	0	8.3	8.1
NNW	.8	2.0	2.0	1.6	.3	.1	.0	.0	.0	.0	.0	0	6.8	6.4
VAR	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0	0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	6.9	0
ALL	12.0	26.9	28.4	20.5	4.1	1.0	.1	.0*	.0	.0	.0	0	100.0	7.8

TOTAL NO. OF OBS : 7934

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4				>=5/8		>=1/2		>=5/16		>=1/4		>=0	
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=2	>=1	>=1/4	>=1	>=5/4	>=7/8	>=1/2	>=5/16	>=1/4	>=5/16	>=1/4	>=5/8	>=1/2	>=2	>=1 1/2	>=6	>=10
UNLIMIT	43.8	57.1	57.4	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
>=20000	45.0	58.8	59.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>=18000	45.0	59.0	59.3	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
>=16000	45.2	59.2	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
>=14000	46.0	60.4	60.8	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>=12000	47.6	62.5	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=10000	49.8	65.0	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>=9000	49.9	65.1	65.5	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>=8000	51.0	62.0	62.4	62.5	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
>=7000	51.5	67.7	68.1	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=6000	51.8	68.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=5000	52.4	69.8	70.2	70.3	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>=4500	53.7	71.7	72.2	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=4000	54.6	73.4	73.9	74.0	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>=3500	55.7	79.8	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>=3000	56.8	76.9	77.4	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=2500	58.2	79.8	80.3	80.6	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
>=2000	60.0	83.3	83.8	84.2	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>=1800	60.4	84.4	84.9	85.3	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>=1500	62.1	88.2	88.8	89.4	89.4	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>=1200	63.1	90.6	91.2	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=1000	64.2	93.3	93.9	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>=900	64.4	94.2	94.8	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=800	64.5	94.4	95.1	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>=700	64.9	95.2	96.1	97.2	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>=600	65.2	95.7	96.6	97.8	97.8	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>=500	65.2	95.8	97.0	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>=400	65.3	96.4	97.7	99.0	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=300	65.3	96.5	97.8	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=200	65.3	96.6	97.9	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=100	65.3	96.6	97.9	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=0	65.3	96.6	97.9	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : MAR 15 FT  
 MONTH : MAR HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=1/4	>=1/16	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	39.9	53.8	54.1	54.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>=20000	40.7	55.9	56.2	56.4	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
>=18000	40.7	55.9	56.2	56.4	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
>=16000	40.9	56.1	56.4	56.6	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
>=14000	41.8	57.2	57.5	57.7	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9
>=12000	43.2	58.8	59.1	59.3	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>=10000	44.6	60.6	60.9	61.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>=9000	45.1	61.1	61.4	61.6	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=8000	46.1	62.8	63.2	63.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
>=7000	46.2	63.4	63.7	63.9	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=6000	46.5	63.7	64.0	64.2	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>=5000	47.6	65.6	66.0	66.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>=4500	48.7	67.6	68.0	68.2	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=4000	49.7	69.3	69.9	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>=3500	50.4	70.7	71.2	71.4	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=3000	52.5	73.4	74.0	74.5	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=2500	53.6	75.4	76.0	76.7	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
>=2000	55.4	79.2	80.0	80.8	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>=1800	56.4	81.0	81.8	82.5	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>=1500	57.9	84.1	85.3	86.4	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=1200	59.5	87.8	89.0	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=1000	60.7	90.4	91.6	93.1	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>=900	61.0	91.4	92.8	94.4	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>=800	61.4	92.6	94.2	95.7	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>=700	61.5	92.8	94.4	95.9	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
>=600	61.7	93.6	95.2	96.7	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=500	61.7	93.8	95.5	97.0	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>=400	61.7	94.1	95.9	97.6	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=300	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=200	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=100	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=0	61.7	94.1	96.1	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6

TOTAL NO. OF OBS :: 977

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)
CEILING	>=10		>=6		>=5		>=4		>=3		>=2		>=1/2		>=2		VISIBILITY (STATUTE MILES)		>=1		>=1/4		>=1/8		>=1/16		>=1/32		>=1/64		>=1/128		>=1/256		>=1/512		>=1/1024		>=1/2048		>=1/4096		>=1/8192		>=1/16384		>=1/32768		>=1/65536		>=1/131072		>=1/262144		>=1/524288		>=1/1048576		>=1/2097152		>=1/4194304		>=1/8388608		>=1/16777216		>=1/33554432		>=1/67108864		>=1/134217728		>=1/268435456		>=1/536870912		>=1/107374184		>=1/214748368		>=1/429496736		>=1/858993472		>=1/1717986944		>=1/3435973888		>=1/6871947776		>=1/1374389552		>=1/2748779104		>=1/5497558208		>=1/10995116416		>=1/21990232832		>=1/43980465664		>=1/87960931328		>=1/175921862656		>=1/351843725312		>=1/703687450624		>=1/140737490128		>=1/281474980256		>=1/562949960512		>=1/112589932024		>=1/225179864048		>=1/450359728096		>=1/900719456192		>=1/1801438912384		>=1/3602877824768		>=1/7205755649536		>=1/1441151129072		>=1/2882302258144		>=1/5764604516288		>=1/1152920903176		>=1/2305841806352		>=1/4611683612704		>=1/9223367225408		>=1/18446734448016		>=1/3689346889632		>=1/7378693779264		>=1/14757387558528		>=1/29514775117056		>=1/59029550234112		>=1/118059100468224		>=1/236118200936448		>=1/472236401872896		>=1/944472803745792		>=1/1888945607491584		>=1/3777891214983168		>=1/7555782429966336		>=1/1511156485993264		>=1/3022312971986528		>=1/6044625943973056		>=1/1208925888746112		>=1/2417851777492224		>=1/4835703554984448		>=1/9671407109968896		>=1/19342814219937792		>=1/38685628439875584		>=1/77371256879751168		>=1/15474251359550232		>=1/30948502719100464		>=1/61897005438200928		>=1/12379401086400956		>=1/24758802172801912		>=1/49517604345603824		>=1/99035208691207648		>=1/198070417382415296		>=1/396140834764830592		>=1/792281669529661184		>=1/1584563339059222368		>=1/3169126678118444736		>=1/6338253356236889472		>=1/1267650671247377884		>=1/2535301342494755768		>=1/5070602684989511536		>=1/1014120536978902272		>=1/2028241073957804544		>=1/4056482147915609088		>=1/8112964295831218176		>=1/16225928516662436352		>=1/32451857033324872704		>=1/64903714066649745408		>=1/129807428133295590816		>=1/259614856266591181632		>=1/519229712533182363264		>=1/1038459425666364726528		>=1/2076918851332729445056		>=1/4153837702665458890112		>=1/830767540533091776224		>=1/166153508106618355248		>=1/332307016213236710496		>=1/664614032426473420992		>=1/132922806485294884184		>=1/265845612970589768368		>=1/531691225941179536736		>=1/106338245882239067472		>=1/212676491764478134944		>=1/425352983528956269888		>=1/850705967057912539776		>=1/170141193411582507552		>=1/340282386823165015104		>=1/680564773646330030208		>=1/1361129547292650060416		>=1/2722259094585300120832		>=1/5444518189170600241664		>=1/1088903637834100483328		>=1/2177807275668200966656		>=1/4355614551336400193312		>=1/8711229102672800386624		>=1/1742245820534560773348		>=1/3484491641069120156696		>=1/6968983282138240313392		>=1/1393796656427640626784		>=1/2787593312855280125568		>=1/5575186625710560251136		>=1/1115037325421120452272		>=1/2230074650842240904544		>=1/4460149301684480180888		>=1/8920298603368960361776		>=1/1784059720673760723552		>=1/3568119441347520146704		>=1/7136238882695040293408		>=1/1427247776590080586816		>=1/2854495553180160113632		>=1/5708991106360320227264		>=1/1141798221272060454528		>=1/2283596442544120909056		>=1/4567192885088240189112		>=1/9134385770176403782224		>=1/1826877154035280756448		>=1/3653754308070561512896		>=1/7307508616141123025792		>=1/14615017232282466051584		>=1/29230034464564932103168		>=1/58460068929129864206336		>=1/11692013785259732812672		>=1/23384027570519465625344		>=1/46768055141038931250688		>=1/93536110282077862501376		>=1/18707222056415572502752		>=1/37414444112823145005504		>=1/74828888225646290011008		>=1/14965777645329480022016		>=1/29931555290658960044032		>=1/59863110581317920088064		>=1/11972622116263560176128		>=1/23945244232527120352256		>=1/47890488465054240704512		>=1/95780976930108481409024		>=1/19156195386021696281808		>=1/38312390772043392563616		>=1/76624781544086785127232		>=1/15324956308817378054464		>=1/30649912617634756108928		>=1/61299825235269512217856		>=1/12259965047053902443572		>=1/24519930094107804887144		>=1/49039860188215609774288		>=1/98079720376431219549568		>=1/19615944075286243909912		>=1/39231888150572487819824		>=1/78463776301144975639648		>=1/156927552602289511279296		>=1/313855105204579022558592		>=1/627710210409158045117184		>=1/125542042081836085223432		>=1/251084084163672170446864		>=1/502168168327344340893728		>=1/100433633665488671777552		>=1/200867267330977343555104		>=1/401734534661954687110208		>=1/803469069323909374220416		>=1/160693813864781748440832		>=1/321387627729563596881664		>=1/642775255459113193763328		>=1/128555051090226638752656		>=1/257110102180453277505312		>=1/514220204360906555010624		>=1/102844040872181311002128		>=1/205688081744362622004256		>=1/411376163488725244008512		>=1/822752326977450488017024		>=1/1645504653954909776034048		>=1/3291009307909819552068096		>=1/6582018615819639104136192		>=1/1316403723643927820827288		>=1/2632807447287855641654576		>=1/5265614894575711283309152		>=1/1053122978951542256658304		>=1/2106245957903084513316608		>=1/4212491915806169026633216		>=1/8424983831612338053266432		>=1/1684996766424676010653264		>=1/3369993532849352021306528		>=1/6739987065698704042613056		>=1/1347997413139708085246112		>=1/2695994826279416170492224		>=1/5391989652558832340984448		>=1/1078397330517766671968896		>=1/2156794661035533343937792		>=1/4313589322071106687875584		>=1/8627178644142213375751168		>=1/1725435728828442671510336		>=1/3450871457656885343020672		>=1/6891742915313770686041344		>=1/1378348583062754137208688		>=1/2756697166125588274417376		>=1/5513394332251517548834752		>=1/1102678866453025097767504		>=1/2205357732906050195535008		>=1/4410715465812100391070016		>=1/8821430931624200782140032		>=1/17642861832484001564280064		>=1/35285723664968003128560128		>=1/70571447329936006257120256		>=1/14114289465988001254240512		>=1/28228578931976002508481024		>=1/56457157863952005016962048		>=1/11291431572790401003924096		>=1/22582863145580802007848192		>=1/45165726291161604015696384		>=1/90331452582323208031392768		>=1/18066290516464640166678536		>=1/36132581032929280333357072		>=1/72265162065858560666714144		>=1/14453032413177160133342828		>=1/28906064826354320266685656		>=1/57812129652708640533381312		>=1/11562425930541320266676224		>=1/23124851865082640533352448		>=1/46249703730165280266672896		>=1/92499407460330560533345792		>=1/18499881492066120266671584		>=1/36999762984132240533343568		>=1/73999525968264480266670736		>=1/14799905192412896053334144		>=1/29599810384835760266670192		>=1/59199620769671520533340384		>=1/11839924153934320266670072		>=1/23679848307868640533339944		>=1/47359696615737280266670088		>=1/94719393231474560533339896		>=1/18943878646294520266670176		>=1/37887757292589040533339792		>=1/75775514585178080266670144		>=1/15155102917035640533339736		>=1/30310205824071280266670072		>=1/60620411648142560533339512		>=1/12124082329628560266670024		>=1/24248164659257120533339448		>=1/48496329318454240266670016		>=1/96992658636908480533339392		>=1/19398537327317680266670008		>=1/38797074654635360533339296		>=1/77594149309275280266670004		>=1/15518829608550560533339248		>=1/30997659217101120533339244		>=1/61995318434202240533339236		>=1/12398664868404480533339224		>=1/24797329736808960533339216		>=1/49594659473617920533339208		>=1/99189318947235680533339192		>=1/19837863789447120533339184		>=1/39675727578894240533339176		>=1/79351455157788480533339168		>=1/15870291035577680533339164		>=1/31740582071155360533339156		>=1/63481164142230720533339148		>=1/12696232828446160533339144		>=1/25384465656892320533339136		>=1/50768931313784640533339132		>=1/10153786262769280533339128		>=1/20307572525538560533339124		>=1/40615145051077120533339120		>=1/81230290102074240533339116		>=1/16246058204034480533339112		>=1/32492116408068960533339108		>=1/64984232816137920533339104		>=1/12996846533275840533339100		>=1/25993693066551680533339096		>=1/51987386133103360533339092		>=1/10397477266206680533339088		>=1/20794954532413360533339084		>=1/41589909064826720533339080		>=1/83179818129653360533339076		>=1/16635963625930680533339072		>=1/33271927251861360533339068		>=1/66543854503722720533339064		>=1/13308778907445360533339060		>=1/26617557814890720533339056		>=1/53235115630181480533339052		>=1/10647023266060880533339048		>=1/21294046532121760533339044		>=1/42588093064243520533339040		>=1/85176186128487040533339036		>=1/17035237256977040533339032		>=1/34070474513954080533339028		>=1/68140949027908160533339024		>=1/13628189855816320533339020		>=1/27256379711632640533339016		>=1/54512759423265120533339012		>=1/109025518	

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=1/2	>=5/16	>=1/9	>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=2	>=1/2	>=1					
UNLIMIT	31.0	45.5	49.0	50.5	51.5	51.7	52.1	52.3	52.5	52.6	52.6	52.7	52.7	52.7	52.7
>=20000	32.2	48.5	52.0	53.5	54.6	54.8	55.2	55.4	55.6	55.7	55.7	55.8	55.8	55.8	55.8
>=18000	32.2	48.6	52.1	53.6	54.7	54.9	55.3	55.5	55.7	55.8	55.8	55.9	55.9	55.9	55.9
>=16000	32.6	49.3	52.7	54.3	55.3	55.5	55.9	56.1	56.4	56.4	56.5	56.5	56.6	56.6	56.6
>=14000	33.4	50.9	54.5	56.0	57.1	57.3	57.7	57.9	58.1	58.2	58.2	58.3	58.3	58.3	58.3
>=12000	34.6	53.0	56.8	58.4	59.5	59.7	60.1	60.3	60.5	60.6	60.6	60.7	60.7	60.7	60.7
>=10000	35.5	54.8	58.6	60.4	61.5	61.7	62.1	62.3	62.5	62.6	62.6	62.7	62.8	62.8	62.8
>=9000	35.6	54.9	58.9	60.6	61.7	61.9	62.3	62.5	62.7	62.8	62.8	62.9	63.0	63.0	63.0
>=8000	36.2	57.1	61.1	63.0	64.1	64.3	64.7	64.9	65.1	65.2	65.2	65.3	65.4	65.4	65.4
>=7000	37.2	57.4	61.6	63.5	64.6	64.8	65.2	65.4	65.6	65.7	65.7	65.8	65.9	65.9	65.9
>=6000	37.5	57.8	62.1	64.1	65.1	65.3	65.7	65.9	66.1	66.2	66.2	66.4	66.5	66.5	66.5
>=5000	37.8	58.7	63.2	65.2	66.2	66.5	66.9	67.1	67.3	67.4	67.4	67.5	67.6	67.6	67.6
>=4500	38.6	59.8	64.3	66.2	67.3	67.5	67.8	68.1	68.3	68.4	68.4	68.5	68.6	68.6	68.6
>=4000	39.3	61.1	65.6	67.8	68.9	69.1	69.5	69.7	69.9	70.0	70.0	70.1	70.2	70.2	70.2
>=3500	40.0	62.6	67.1	69.3	70.5	70.9	71.1	71.4	71.7	71.5	71.5	71.6	71.7	71.7	71.7
>=3000	42.0	65.8	70.4	72.7	73.9	74.1	74.5	74.7	74.9	75.0	75.0	75.1	75.2	75.2	75.2
>=2500	44.3	69.6	74.4	76.8	77.9	78.1	78.5	78.7	79.0	79.1	79.1	79.2	79.3	79.3	79.3
>=2000	46.7	74.5	79.6	82.0	83.2	83.5	84.1	84.3	84.5	84.6	84.6	84.7	84.8	84.8	84.8
>=1800	47.5	75.6	80.9	83.3	84.7	85.0	85.5	85.7	85.9	86.0	86.0	86.1	86.2	86.2	86.2
>=1500	49.1	79.9	85.3	88.0	89.5	89.8	90.5	90.7	90.8	90.8	90.8	91.0	91.0	91.0	91.0
>=1200	49.7	82.2	87.8	90.6	92.2	92.5	93.1	93.8	93.9	93.9	94.0	94.1	94.1	94.1	94.1
>=1000	50.2	84.0	89.7	92.9	94.5	94.9	95.5	95.9	96.1	96.2	96.2	96.3	96.5	96.5	96.5
>=900	50.2	84.4	90.1	93.4	95.0	95.4	96.2	96.7	96.9	97.0	97.0	97.1	97.2	97.2	97.2
>=800	50.2	84.6	90.3	93.8	95.4	95.8	96.9	97.3	97.5	97.6	97.6	97.7	97.8	97.8	97.8
>=700	50.2	84.7	90.5	94.0	95.7	96.1	97.2	97.6	97.8	97.9	97.9	98.0	98.1	98.1	98.1
>=600	50.2	84.8	90.6	94.1	95.8	96.2	97.3	97.8	98.1	98.2	98.2	98.3	98.4	98.4	98.4
>=500	50.2	84.8	90.6	94.1	96.1	96.2	97.3	97.7	98.3	98.4	98.4	98.5	98.5	98.5	98.5
>=400	50.2	84.8	90.6	94.1	96.1	96.2	97.3	97.7	98.3	98.4	98.4	98.5	98.5	98.5	98.5
>=300	50.2	84.8	90.6	94.1	96.1	96.2	97.3	97.7	98.3	98.4	98.4	98.5	98.5	98.5	98.5
>=200	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.4	98.7	98.7	98.7	98.9	99.0	99.0	99.0
>=100	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.5	98.9	99.1	99.1	99.3	99.3	99.3	99.3
>=0	50.2	84.8	90.6	94.1	96.2	96.8	97.8	98.5	99.2	99.3	99.3	99.4	99.4	99.4	99.4

TOTAL NO. OF OVS : 960

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4		
UNLIMITED	55.0	56.3	57.5	57.9	58.0	58.0	58.2	58.2	58.2	58.2	58.2	58.2
>=20000	58.8	60.2	61.3	61.7	61.9	61.9	62.1	62.1	62.1	62.1	62.1	62.1
>=18000	59.5	60.8	62.0	62.4	62.5	62.5	62.7	62.7	62.7	62.7	62.7	62.7
>=16000	40.3	59.9	61.2	62.4	62.8	62.9	63.0	63.2	63.2	63.2	63.2	63.2
>=14000	41.4	61.5	62.9	64.1	64.6	64.7	64.7	65.0	65.0	65.0	65.0	65.0
>=12000	42.2	63.5	65.1	66.4	66.8	66.9	66.9	67.3	67.3	67.3	67.3	67.3
>=10000	43.9	66.1	67.7	69.1	69.5	69.8	69.8	70.1	70.1	70.1	70.1	70.1
>=9000	44.1	66.3	67.9	69.3	69.8	70.0	70.0	70.3	70.3	70.3	70.3	70.3
>=8000	44.9	67.2	69.5	71.1	71.5	71.7	71.7	72.0	72.0	72.0	72.0	72.0
>=7000	45.0	68.3	70.1	71.6	72.0	72.2	72.2	72.6	72.6	72.6	72.6	72.6
>=6000	45.4	68.7	70.5	72.0	72.5	72.7	72.7	73.0	73.0	73.0	73.0	73.0
>=5000	46.6	70.7	72.5	74.0	74.6	74.6	74.6	74.9	74.9	74.9	74.9	74.9
>=4500	47.3	71.5	73.3	74.8	75.3	75.5	75.5	75.8	75.8	75.8	75.8	75.8
>=4000	48.3	73.0	74.8	76.4	76.8	77.0	77.0	77.3	77.3	77.3	77.3	77.3
>=3500	49.5	74.7	76.2	78.4	78.8	79.0	79.0	79.3	79.3	79.3	79.3	79.3
>=3000	52.0	78.4	80.5	82.3	83.1	83.1	83.1	83.4	83.4	83.4	83.4	83.4
>=2500	55.5	83.4	85.4	87.4	88.0	88.3	88.3	88.6	88.6	88.6	88.6	88.6
>=2000	57.4	87.0	89.2	91.4	92.4	92.5	92.5	92.8	92.8	92.8	92.8	92.8
>=1800	57.6	87.7	89.9	92.1	93.0	93.1	93.1	93.6	93.6	93.6	93.6	93.6
>=1500	58.5	89.9	92.3	94.6	95.4	95.6	95.6	96.0	96.0	96.2	96.2	96.2
>=1200	58.8	90.7	93.3	95.7	96.7	96.9	97.0	97.3	97.3	97.4	97.4	97.4
>=1000	59.0	91.5	94.1	96.9	98.0	98.2	98.3	98.8	98.8	98.9	98.9	98.9
>=900	59.0	91.7	94.4	97.3	98.4	98.6	98.6	99.2	99.2	99.4	99.4	99.4
>=800	59.0	91.9	94.6	97.5	98.6	98.9	99.0	99.4	99.4	99.6	99.6	99.6
>=700	59.0	91.9	94.6	97.6	98.8	99.0	99.1	99.5	99.5	99.7	99.7	99.7
>=600	59.0	91.9	94.6	97.6	98.8	99.1	99.2	99.6	99.6	99.9	99.9	99.9
>=500	59.0	91.9	94.6	97.6	98.8	99.1	99.2	99.6	99.6	99.9	99.9	99.9
>=400	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0
>=300	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0
>=200	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0
>=100	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0
>=0	59.0	91.9	94.7	97.7	98.9	99.2	99.3	99.7	99.7	100.0	100.0	100.0

TOTAL NO. OF OBS : 962

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1966  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=1	>=1/2	>=1	>=1/4					
UNLIMITED	43.5	59.7	60.9	61.2	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>=20000	45.8	63.5	64.6	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=18000	46.1	64.1	65.3	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>=16000	46.3	64.5	65.7	66.1	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>=14000	47.5	66.7	68.0	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=12000	48.7	69.0	70.3	70.7	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
>=10000	50.1	72.1	73.3	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>=9000	51.4	72.7	74.0	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=8000	52.7	75.3	76.6	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
>=7000	53.1	75.9	77.2	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=6000	53.3	76.5	77.7	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
>=5000	54.1	77.6	78.9	79.4	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
>=4500	55.0	79.2	80.5	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=4000	55.8	80.2	81.6	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=3500	56.8	82.0	83.4	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=3000	58.4	84.5	86.0	86.6	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>=2500	60.1	87.2	89.0	90.0	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>=2000	61.4	89.7	91.8	92.9	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
>=1800	61.8	90.7	92.8	93.9	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
>=1500	62.1	92.2	94.6	95.9	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>=1200	62.3	93.2	95.6	97.0	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>=1000	62.7	93.9	96.5	98.0	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>=900	62.7	94.1	96.8	98.3	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=800	62.7	94.2	97.0	98.6	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=700	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=600	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=500	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=400	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=300	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=200	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=100	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=0	62.8	94.4	97.1	98.7	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4

TOTAL NO. OF OBS : 956

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAR  
HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=2 1/2	>=2 1/4	>=1 1/2	>=1 1/4
UNLIMITED	59.6	60.5	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
>=20000	62.9	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=16000	63.4	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
>=14000	64.1	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>=12000	66.7	67.6	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>=10000	69.3	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=9000	71.8	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=8000	72.3	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=7000	74.5	75.4	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>=6000	75.3	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>=5000	75.8	75.4	76.3	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=4500	77.4	78.3	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=4000	78.5	79.5	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>=3500	79.5	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=3000	80.8	81.9	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>=2500	83.2	84.3	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>=2000	86.0	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>=1800	89.6	90.8	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>=1500	91.7	91.9	91.1	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>=1200	93.2	94.8	95.5	94.3	94.4	94.4	94.4	94.4	94.4	94.4
>=1000	94.1	96.1	96.9	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>=900	94.3	96.4	97.1	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=800	94.8	96.9	97.6	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=700	95.0	97.1	97.8	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>=600	95.3	97.4	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=500	95.5	97.4	98.6	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=400	95.7	98.0	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=300	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	95.7	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	95.8	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	95.8	98.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 959

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=0
UNLIMIT	48.4	62.7	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=20000	49.4	64.3	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=18000	49.4	64.3	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=16000	49.7	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=14000	50.9	66.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>=12000	52.1	67.7	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=10000	53.9	70.4	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>= 9000	54.2	70.7	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>= 8000	55.3	72.3	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 7000	56.2	73.5	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>= 6000	56.7	74.5	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>= 5000	57.6	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>= 4500	58.3	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>= 4000	59.0	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 3500	59.5	80.2	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>= 3000	60.1	81.9	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 2500	61.9	85.3	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>= 2000	64.2	89.5	89.9	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 1800	64.6	90.5	90.9	91.1	91.2	91.2	91.2	91.2	91.2	91.2
>= 1500	65.3	92.6	93.1	93.3	93.4	93.4	93.4	93.4	93.4	93.4
>= 1200	65.9	93.7	94.5	94.9	95.2	95.2	95.2	95.2	95.2	95.2
>= 1000	66.3	94.9	95.8	96.2	96.6	96.6	96.6	96.6	96.6	96.6
>= 900	66.6	95.7	96.6	97.0	97.4	97.4	97.4	97.4	97.4	97.4
>= 800	66.6	95.9	96.8	97.2	97.6	97.6	97.6	97.6	97.6	97.6
>= 700	66.8	96.3	97.3	97.8	98.2	98.2	98.2	98.2	98.2	98.2
>= 600	66.8	96.7	97.7	98.2	98.8	98.8	98.8	98.8	98.8	98.8
>= 500	67.1	97.1	98.1	98.9	99.5	99.6	99.6	99.6	99.6	99.6
>= 400	67.1	97.2	98.2	99.2	99.8	99.8	99.9	99.9	99.9	99.9
>= 300	67.1	97.2	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	67.1	97.3	98.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0
>= 100	67.1	97.3	98.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0
>= 0	67.1	97.3	98.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 967

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1/2	>=1	>=1/4
UNLIMIT	40.1	54.4	56.0	56.5	56.8	56.8	56.9	56.9	57.0	57.0
>=20000	41.5	57.4	58.6	59.1	59.4	59.5	59.6	59.6	59.6	59.6
>=18000	41.6	57.2	58.9	59.4	59.2	59.7	59.8	59.9	59.9	59.9
>=16000	41.9	58.1	59.3	59.8	60.1	60.2	60.3	60.3	60.4	60.4
>=14000	42.9	59.8	61.0	61.5	61.8	61.9	62.0	62.0	62.1	62.1
>=12000	44.2	61.8	63.0	63.5	63.9	63.9	64.0	64.1	64.1	64.2
>=10000	45.8	64.2	65.4	66.0	66.4	66.4	66.5	66.6	66.6	66.7
>=9000	46.1	64.5	65.8	66.4	66.7	66.8	66.9	66.9	67.0	67.0
>=8000	47.2	66.4	67.2	68.4	68.7	68.8	68.9	68.9	69.0	69.1
>=7000	47.7	67.2	68.5	69.5	69.6	69.6	69.7	69.7	69.8	69.8
>=6000	48.0	67.8	69.1	69.8	70.1	70.2	70.3	70.4	70.4	70.5
>=5000	49.0	69.4	70.8	71.5	71.8	72.0	72.0	72.1	72.1	72.2
>=4500	49.9	71.0	72.4	73.1	73.4	73.5	73.6	73.7	73.7	73.8
>=4000	50.7	72.3	73.7	74.4	74.8	74.9	75.0	75.0	75.1	75.2
>=3500	51.5	73.6	75.2	75.9	76.3	76.4	76.4	76.5	76.5	76.6
>=3000	53.0	76.3	77.8	78.7	79.1	79.2	79.3	79.3	79.4	79.5
>=2500	54.9	79.5	81.2	82.1	82.6	82.7	82.8	82.8	82.9	82.9
>=2000	56.7	83.0	85.0	86.1	86.6	86.6	86.9	87.0	87.0	87.1
>=1800	57.3	84.0	86.1	87.0	87.7	87.8	87.9	88.0	88.1	88.1
>=1500	58.4	87.1	89.2	90.5	91.1	91.2	91.4	91.4	91.5	91.6
>=1200	59.2	89.1	91.3	92.8	93.4	93.5	93.7	93.8	93.9	94.0
>=1000	59.7	90.7	93.0	94.6	95.4	95.5	95.7	95.9	96.0	96.0
>=900	59.9	91.3	93.7	95.3	96.1	96.2	96.5	96.6	96.7	96.7
>=800	59.9	91.7	94.2	95.9	96.7	96.9	97.2	97.3	97.4	97.4
>=700	60.1	92.0	94.6	96.4	97.3	97.4	97.7	97.9	98.0	98.0
>=600	60.1	92.3	94.9	96.7	97.6	97.9	98.2	98.3	98.5	98.5
>=500	60.2	92.4	95.1	97.0	97.9	98.2	98.5	98.7	98.9	98.9
>=400	60.2	92.6	95.3	97.3	98.3	98.6	99.1	99.2	99.3	99.4
>=300	60.2	92.6	95.4	97.4	98.5	98.7	99.1	99.3	99.5	99.6
>=200	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.6	99.7
>=100	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.6	99.8
>=0	60.2	92.7	95.4	97.4	98.5	98.7	99.1	99.4	99.7	100.0

TOTAL NO. OF OBS : 7739

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=56	TOTAL %	MEAN WIND SPEED
	16 PT	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47			
N	.8	1.9	1.5	.6	.1	.0	.0	.0	.0	.0	.0	4.9	6.7
NNE	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	3.0
NE	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.2
ENE	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.3
E	1.1	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	2.8	4.3
ESE	1.5	2.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	4.3	4.6
SE	.9	.9	.6	.9	.0	.0	.0	.0	.0	.0	.0	3.4	7.2
SSE	.5	.7	.4	.8	.3	.0	.0	.0	.0	.0	.0	2.8	8.7
S	.7	.9	1.5	1.0	.2	.1	.0	.0	.0	.0	.0	4.5	8.6
SSW	.7	2.1	1.4	.5	.0	.0	.0	.0	.0	.0	.0	4.7	6.4
SW	.6	3.0	2.8	.8	.0	.0	.0	.0	.0	.0	.0	7.3	7.1
WSW	.8	3.4	3.3	1.6	.1	.0	.0	.0	.0	.0	.0	9.3	7.4
W	1.9	5.0	8.6	3.9	.5	.0	.0	.0	.0	.0	.0	19.9	8.2
WNW	1.5	2.7	2.4	1.6	.2	.0	.0	.0	.0	.0	.0	8.3	7.7
NW	2.4	1.7	2.8	1.5	.5	.1	.0	.0	.0	.0	.0	9.0	7.7
NNW	1.1	1.8	1.9	1.5	.3	.1	.0	.0	.0	.0	.0	6.7	8.2
VAR	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0
CLM	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0	..0	9.8	0.0
ALL	15.8	28.9	28.0	14.9	2.3	.3	.0	.0	.0	.0	.0	100.0	6.6

TOTAL NO. OF OBS :

\$60

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED	
		1 - 31	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	>56		
N	1.5	2.3	1.8	.8	.1	.0	.0	.0	.0	.0	.0	.0	6.5	6.7
NNE	.5	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.4	4.5
NE	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	3.5
ENE	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	2.7
E	2.1	2.8	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.1	4.2
ESE	2.5	2.9	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	6.7	4.9
SE	1.0	1.7	.8	.9	.3	.1	.0	.0	.0	.0	.0	.0	4.9	7.6
SSE	.5	.4	.5	.8	.3	.0	.0	.0	.0	.0	.0	.0	2.6	9.5
S	.7	1.5	2.1	.6	.4	.0	.0	.0	.0	.0	.0	.0	5.3	7.8
SSW	.6	1.5	1.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	4.0	6.8
SWN	.7	2.0	2.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	5.4	7.0
SW	.8	2.9	2.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	7.0	7.1
W	1.1	4.6	5.6	2.9	.3	.0	.0	.0	.0	.0	.0	.0	14.6	7.9
WNW	.6	2.6	2.8	1.8	.2	.0	.0	.0	.0	.0	.0	.0	8.0	8.1
NNW	.9	1.2	2.3	1.9	.5	.0	.0	.0	.0	.0	.0	.0	6.9	9.1
NNW	.7	1.2	1.1	1.4	.1	.0	.0	.0	.0	.0	.0	.0	4.6	8.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.1	0.0
ALL	15.8	28.9	25.0	13.6	2.5	.1	.0	.0	.0	.0	.0	.0	100.0	6.2

NOTES : \* = PERCENT &lt; .05

TOTAL NO. OF OBS : 960

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD: 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED	
		1	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>=56
N	1.9	2.6	2.3	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	7.1
NNE	.8	.5	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.9
NE	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8
ENE	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4
E	2.2	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
ESE	2.1	2.9	1.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.4
SE	1.8	2.9	2.2	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	8.2
SSE	1.0	1.2	1.2	1.2	.7	.1	.0	.0	.0	.0	.0	.0	.0	9.3
S	.6	1.5	1.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	3.5
SSW	.6	1.0	2.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.4
SW	.6	1.4	2.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1
WSW	.7	2.0	2.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9
W	1.5	3.3	4.5	1.8	.0	.1	.0	.0	.0	.0	.0	.0	.0	7.5
WNW	1.1	1.8	2.5	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	6.6
NNW	1.2	1.5	1.4	2.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.3
NNW	1.0	1.2	1.4	2.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	8.9
VAR	-.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	18.2	26.6	26.2	12.2	2.4	.5	.1	.0	.0	.0	.0	.0	.0	6.1

TOTAL NO. OF OBS : 960

NOTES :  
\* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>50   50-55   45-50   40-45   35-40   28-33   22-27   17-21   11-16   7-10   4-6   1-3   16 PI.							TOTAL   MEAN WIND SPEED	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
N	.5	1.5	.7	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	4.1 9.3
NNE	.1	.1	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5 10.0
NE	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3 10.3
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3 5.7
ESE	.2	.0	.1	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6 12.3
SE	.5	.5	.8	.5	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	3.5 11.4
SSE	.6	4.3	2.3	1.4	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	9.4 7.7
S	3.0	7.4	2.7	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.2 5.7
SSW	2.3	4.1	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2 5.3
SW	1.5	3.7	2.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.8 5.9
WSW	1.9	4.0	2.1	.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.0 6.2
W	1.5	5.1	5.2	2.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.9 7.9
NNW	.3	2.5	2.7	1.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0 8.1
NW	1.0	5.0	2.3	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0 7.1
NNW	1.0	2.8	2.6	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.1 8.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2 0.0
ALL	14.8	41.4	24.9	12.9	3.0	.8	.0	.1	.0	.0	.0	.0	.0	.0	100.0 7.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023236 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPLED  
 (FROM HOURLY OBSERVATIONS)

16 PT.	1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN
																WIND SPEED	
N	.0	.	.3	.2	.	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.3
NNE	.0	.	.1	.0	.	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7
NE	.0	.	.0	.1	.	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0
ENE	.0	.	.1	.0	.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
E	.0	.	.0	.1	.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.	.0	.2	.	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	12.3
SE	.0	.	.1	.1	.	.8	.3	.2	.1	.0	.0	.0	.0	.0	.0	.7	16.3
SSE	.0	.	.3	.5	.	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6
S	.0	.	1.6	1.0	.	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.4
SSW	1.0	.	1.6	.8	.	.8	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.9
SW	.5	.	2.0	2.5	.	1.7	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	7.4
WSW	.6	.	2.0	3.7	.	4.2	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.4
WW	.6	.	2.9	13.5	.	15.7	2.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	10.1
WNW	.7	.	2.1	8.3	.	8.4	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	11.3
NNW	.2	.	2.3	4.2	.	2.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	10.5
NNW	.1	.	.6	1.6	.	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1
VAR	.0	.	.0	.0	.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.6
CLM	.0	.	.0	.0	.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	3.7	16.2	37.0	33.2	7.1	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0	10.3

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55		
N	.0	.1	.2	.5	.0	.1	.0	.0	.0	.0	.0	.9	13.0
NNE	.0	.0	.1	.5	.0	.0	.0	.0	.0	.0	.0	.6	12.3
NE	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	9.3
ENE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	10.0
E	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.0
ESE	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	12.0
SE	.0	.2	.1	.2	.1	.2	.0	.0	.0	.0	.0	.8	14.1
SSE	.0	.2	.2	.3	.3	.0	.0	.0	.0	.0	.0	.0	1.0
S	.1	.7	.6	.4	.4	.0	.0	.0	.0	.0	.0	.0	2.9
SSW	.1	.3	.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	2.0
SW	.2	.4	.8	1.2	.4	.1	.0	.0	.0	.0	.0	.3	11.6
WSW	.1	.4	3.1	5.0	1.2	.2	.0	.0	.0	.0	.0	.0	10.1
W	.1	1.2	12.5	31.5	8.9	1.2	.0	.0	.0	.0	.0	.0	55.4
NNW	.2	.6	4.8	7.3	1.8	.7	.1	.0	.0	.0	.0	.0	15.5
NN	.0	.5	2.8	1.5	.1	.0	.0	.0	.0	.0	.0	.0	4.9
NNW	.1	.5	.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	1.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	1.0	5.3	26.9	49.7	13.6	3.1	.2	.0	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55		
												%	WIND SPEED
N	.2	1.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	2.1
NNE	.1	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.9
NE	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8
ENE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0
E	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0
ESE	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	8.5
SE	.0	.0	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	12.6
SSE	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.5	17.8
S	.0	.1	.9	1.2	.2	.1	.1	.0	.0	.0	.0	.0	2.7
SSW	.1	.2	1.2	1.1	.1	.1	.0	.0	.0	.0	.0	.0	2.9
SW	.1	.8	1.9	1.4	.0	.0	.0	.0	.0	.0	.0	.0	11.3
WSW	.1	1.5	3.5	2.9	.6	.1	.0	.0	.0	.0	.0	.2	9.4
W	.6	3.2	17.2	20.1	3.2	.3	.0	.0	.0	.0	.0	.0	9.7
NNW	.3	3.4	7.4	7.0	.8	.2	.1	.0	.0	.0	.0	.0	10.4
NN	.2	1.9	2.8	.7	.1	.3	.0	.0	.0	.0	.0	.0	19.3
NNW	.5	2.1	1.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	4.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
ALL	2.6	15.5	37.5	36.7	5.6	.8	.2	.0	.0	.0	.0	.0	10.2

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986.  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	-	3	4	-	6	7	-10	11	-16	17	-21	22	-27	28	-33	34	-40	41	-47	48	-55	TOTAL		MEAN					
																								%	WIND SPEED	%	WIND SPEED				
N	1.0	1.4	1.1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5
NNE	*.4	*.2	*.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8
NE	*.3	*.0	*.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.7
ENE	*.0	*.2	*.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0
E	*.3	*.1	*.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.8
ESE	*.2	*.7	*.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.1
SE	*.1	*.4	*.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.8
SSE	*.3	*.2	*.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.2
S	*.2	*.4	*.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.4
SSW	*.7	*.9	*.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.8
SW	*.1.7	*.2.2	*.2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5
WSW	*.1.2	*.4.6	*.4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.6
W	*.2.6	*.7.2	*.11.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7
NNW	*.1.6	*.5.9	*.3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.8
NW	*.1.9	*.2.8	*.2.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.8
NNW	*.8	*.2.3	*.2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.2
VAR	-*.0	*.0	*.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
CLM	*.0	*.0	*.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
ALL	13.4	28.4	31.9	17.5	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	SPEED (KNOTS)													
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	>=56	TOTAL	MEAN WIND SPEED
DIR.													%	
N	.7	1.4	1.1	.6	.2	.1	.0	.0	.0	.0	.0	.0	4.0	7.4
NNE	.3	.3	.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	1.0	6.5
NE	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.8
ENE	.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.3
E	.7	.8	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.8	4.5
ESE	.8	1.1	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	2.6	5.5
SE	.5	.8	.6	.6	.3	.1	.0*	.0	.0	.0	.0	.0	3.0	9.0
SSE	.4	.9	.7	.7	.4	.1	.0	.0	.0	.0	.0	.0	3.2	9.3
S	.7	1.9	1.4	.7	.3	.1	.0*	.0	.0	.0	.0	.0	5.2	8.0
SSW	.8	1.5	1.3	.7	.1	.0*	.0	.0	.0	.0	.0	.0	4.3	7.2
SW	.7	2.0	2.1	1.0	.1	.0*	.0	.0	.0	.0	.0	.0	5.8	7.5
WSW	.8	2.6	3.2	2.4	.4	.1	.0	.0	.0	.0	.0	.0	9.4	8.7
W	1.2	4.1	9.9	10.6	2.1	.3	.0	.0	.0	.0	.0	.0	28.1	10.5
NNW	.7	2.5	4.3	3.6	.5	.2	.0*	.0	.0	.0	.0	.0	11.9	9.7
NW	1.0	2.1	2.6	1.7	.3	.0*	.0	.0	.0	.0	.0	.0	7.7	8.2
NNW	.7	1.6	1.6	1.0	.2	.0*	.0	.0	.0	.0	.0	.0	5.1	8.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	0.0
ALL	10.7	23.9	29.7	23.8	4.9	1.0	.1	.0*	.0	.0	.0	.0	100.0	8.3

TOTAL NO. OF OBS : 7680

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										PERCENTAGE FREQUENCY OF OCCURRENCE					
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMITED	53.4	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6
>=20000	54.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=18000	54.2	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
>=16000	54.6	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=14000	54.9	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=12000	55.6	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>=10000	56.5	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>= 9000	56.6	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>= 8000	58.1	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
>= 7000	58.3	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
>= 6000	58.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>= 5000	59.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 4500	59.9	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 4000	60.5	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>= 3500	61.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
>= 3000	62.1	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>= 2500	64.2	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
>= 2000	66.1	86.9	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>= 1800	66.3	87.7	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 1500	67.3	89.8	90.1	90.2	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 1200	68.6	92.0	92.4	92.6	92.8	92.8	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1000	69.9	94.6	95.1	95.3	95.5	95.5	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 900	70.3	95.7	96.1	96.3	96.5	96.5	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>= 800	70.3	96.0	96.4	96.6	96.6	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>= 700	70.5	96.6	97.2	97.5	97.7	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>= 600	70.7	97.6	98.2	98.5	98.7	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>= 500	70.8	97.8	98.4	98.4	98.4	98.4	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 400	70.8	98.0	98.6	99.2	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 300	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	70.8	98.1	98.8	99.4	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 950

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=0						
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	47.1	62.4	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
>=20000	47.7	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=18000	47.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
>=16000	48.0	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
>=14000	48.5	64.7	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=12000	49.2	65.0	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=10000	50.0	66.4	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=9000	50.1	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
>=8000	50.8	67.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
>=7000	51.0	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=6000	51.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=5000	52.7	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>=4500	54.1	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>=4000	54.4	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=3500	54.9	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>=3000	56.4	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>=2500	57.4	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>=2000	60.3	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
>=1800	61.0	83.0	83.1	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>=1500	62.9	86.5	86.7	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=1200	65.7	89.7	90.0	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>=1000	66.4	93.5	94.1	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
>=900	66.9	94.9	95.6	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
>=800	67.2	96.1	96.9	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=700	67.4	97.0	97.7	97.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=600	67.5	97.5	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=500	67.6	97.7	98.6	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
>=400	67.6	98.0	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=100	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0	67.6	98.1	99.2	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 954

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMITED	57.2	54.4	55.0	55.6	55.7	55.8	55.8	55.8	55.8	55.8
>=20000	38.6	57.0	57.7	58.4	58.5	58.6	58.6	58.6	58.6	58.6
>=18000	39.1	57.2	58.5	59.1	59.2	59.3	59.3	59.3	59.3	59.3
>=16000	39.1	57.7	58.6	59.3	59.4	59.6	59.6	59.6	59.6	59.6
>=14000	40.0	59.1	60.0	60.7	60.8	60.9	60.9	60.9	60.9	60.9
>=12000	41.5	60.7	61.6	62.3	62.4	62.5	62.5	62.5	62.5	62.5
>=10000	42.1	61.9	62.7	63.5	63.6	63.7	63.7	63.7	63.7	63.7
>=9000	42.4	62.1	63.0	63.7	63.8	63.9	63.9	63.9	63.9	63.9
>=8000	43.2	63.9	64.2	65.5	65.6	65.7	65.7	65.7	65.7	65.7
>=7000	44.2	64.4	65.3	66.0	66.1	66.2	66.2	66.2	66.2	66.2
>=6000	44.5	64.9	65.7	66.5	66.6	66.7	66.7	66.7	66.7	66.7
>=5000	45.0	65.5	66.3	67.1	67.2	67.3	67.3	67.3	67.3	67.3
>=4500	46.1	66.8	67.6	68.4	68.5	68.6	68.6	68.6	68.6	68.6
>=4000	46.8	67.6	68.5	69.2	69.3	69.4	69.4	69.4	69.4	69.4
>=3500	47.5	68.7	69.6	70.4	70.5	70.6	70.6	70.6	70.6	70.6
>=3000	48.7	70.9	71.9	72.7	72.8	72.9	72.9	72.9	72.9	72.9
>=2500	50.5	73.7	74.7	75.6	75.7	75.8	75.8	75.8	75.8	75.8
>=2000	52.0	77.4	78.8	79.6	79.7	79.8	79.8	79.8	79.8	79.8
>=1800	52.9	78.0	79.4	80.3	80.5	80.6	80.6	80.6	80.6	80.6
>=1500	54.5	81.8	83.5	84.7	85.0	85.1	85.1	85.1	85.1	85.1
>=1200	55.9	85.6	87.4	88.5	89.0	89.1	89.1	89.1	89.1	89.1
>=1000	56.9	89.3	91.2	92.6	93.0	93.1	93.1	93.1	93.1	93.1
>=900	57.0	90.8	92.9	94.3	94.7	94.8	94.8	94.8	94.8	94.8
>=800	57.1	91.6	94.4	95.9	96.3	96.4	96.4	96.4	96.4	96.4
>=700	57.1	92.1	95.2	96.7	97.1	97.2	97.2	97.2	97.2	97.2
>=600	57.1	92.7	96.1	97.7	98.2	98.4	98.4	98.4	98.4	98.4
>=500	57.1	93.0	96.7	98.3	98.8	99.0	99.0	99.0	99.0	99.0
>=400	57.1	93.1	96.8	98.4	99.0	99.3	99.3	99.3	99.3	99.3
>=300	57.1	93.2	96.9	98.6	99.3	99.5	99.6	99.6	99.6	99.6
>=200	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.7
>=100	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.7
>=0	57.1	93.3	97.0	98.7	99.4	99.6	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 942

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : APR

HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=1/2 >=2 >=3 >=4 >=5 >=6 >=10				>=1/2 >=2 >=5/8 >=1/2			
	>=1/2	>=2	>=3	>=4	>=5	>=6	>=10	>=1	>=1/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMITED	40.3	59.1	61.4	62.7	63.2	63.4	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	
>=20000	43.3	63.0	65.2	66.5	67.0	67.2	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	
>=18000	43.7	63.5	65.7	67.0	67.6	67.8	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	
>=16000	46.1	64.1	66.4	67.7	68.2	68.4	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	
>=14000	44.7	65.0	67.2	68.5	69.0	69.3	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	
>=12000	45.3	66.0	68.2	69.5	70.0	70.2	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	
>=10000	46.3	67.2	69.5	70.7	71.3	71.5	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	
>=9000	46.5	67.4	69.7	71.0	71.5	71.7	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	
>=8000	47.6	68.7	71.0	72.2	72.8	73.0	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	
>=7000	47.7	69.1	71.4	72.7	73.2	73.4	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	
>=6000	48.0	69.5	71.8	73.1	73.6	73.8	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	
>=5000	48.7	70.6	73.0	74.3	74.8	75.0	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	
>=4500	49.6	72.1	74.5	75.7	76.3	76.5	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	
>=4000	50.4	73.3	75.6	76.9	77.4	77.7	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	
>=3500	51.0	74.0	76.4	77.7	78.2	78.4	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	
>=3000	52.7	76.1	78.5	79.8	80.3	80.5	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	
>=2500	55.3	79.9	82.6	83.9	84.6	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	
>=2000	57.3	83.9	86.6	88.1	88.7	89.0	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	
>=1800	57.9	84.7	87.3	88.8	89.5	89.8	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	
>=1500	58.8	87.3	90.1	91.7	92.4	92.3	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	
>=1200	60.6	89.8	92.7	94.6	95.5	95.9	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	
>=1000	60.6	91.0	93.8	95.9	96.9	97.2	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	
>=900	60.7	91.2	94.0	96.1	97.2	97.6	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	
>=800	60.7	91.7	94.6	96.7	97.9	98.2	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	
>=700	60.7	91.9	94.8	97.0	98.3	98.6	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	
>=600	60.7	92.0	94.9	97.2	98.5	98.8	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
>=500	60.7	92.0	94.9	97.2	98.5	98.8	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
>=400	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=300	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=200	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=100	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>=0	60.7	92.0	95.0	97.3	98.6	98.9	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	

TOTAL NO. OF OBS. : 940

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=1/4				
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1/4	>=5/8	>=5/16	>=1/2	>=1/4
UNLIMIT	51.0	67.8	68.9	69.0	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=20000	54.7	73.0	74.0	74.1	74.2	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
>=18000	55.0	73.3	74.4	74.5	74.6	74.6	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>=16000	55.3	73.6	74.7	74.8	74.9	74.9	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
>=14000	56.3	75.1	76.2	76.4	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
>=12000	56.9	75.9	76.9	77.2	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=10000	58.0	77.4	78.4	78.7	78.8	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>= 9000	58.0	77.5	78.6	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>= 8000	58.7	78.2	79.3	79.5	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>= 7000	59.2	78.8	79.8	80.1	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>= 6000	59.4	79.0	80.2	80.4	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>= 5000	60.5	80.1	81.3	81.5	81.6	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
>= 4500	61.3	81.0	82.3	82.5	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>= 4000	62.0	81.8	83.1	83.3	83.4	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>= 3500	63.5	83.7	85.1	85.3	85.5	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>= 3000	65.2	86.2	87.6	87.8	87.9	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 2500	68.0	90.0	91.4	91.6	91.8	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
>= 2000	69.5	92.7	94.4	94.6	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>= 1800	69.8	93.5	95.6	95.8	96.0	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>= 1500	70.6	95.5	97.8	98.2	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>= 1200	70.8	96.2	98.6	98.9	99.1	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 1000	70.8	96.4	98.9	99.2	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 900	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 800	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 700	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	70.8	96.4	99.0	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 928

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=2	>=1	>=1/2	>=1						
UNLIMIT	53.1	71.2	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=20000	56.9	77.2	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
>=18000	57.2	77.6	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
>=16000	57.8	78.1	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>=14000	59.2	80.0	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
>=12000	60.0	80.9	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>=10000	61.1	82.5	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
>=9000	61.4	82.6	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>=8000	62.7	84.3	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6
>=7000	62.9	84.9	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
>=6000	63.1	85.2	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>=5000	63.6	85.8	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
>=4500	64.1	86.6	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=4000	64.9	87.7	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
>=3500	66.1	89.3	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=3000	67.8	91.7	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>=2500	69.4	93.9	94.4	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
>=2000	70.5	95.8	96.4	96.4	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
>=1800	70.5	95.9	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>=1500	70.7	97.1	97.8	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=1200	70.8	97.6	98.4	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>=1000	70.9	97.8	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>=900	70.9	97.8	98.6	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=800	70.9	97.8	98.6	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=700	70.9	97.8	98.6	99.1	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=600	70.9	98.0	98.7	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=500	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=400	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=200	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=100	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=0	70.9	98.0	98.7	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS.: 928

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4	>=1/8
UNLIMIT	69.7	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=20000	73.6	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=18000	74.4	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>=16000	75.1	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
>=14000	76.4	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>=12000	77.6	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>=10000	79.5	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
>=9000	79.7	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=8000	81.2	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>=7000	82.2	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=6000	82.2	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=5000	83.0	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>=4500	84.0	84.9	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0
>=4000	85.2	86.1	86.1	86.2	86.2	86.2	86.2	86.2	86.2	86.2
>=3500	86.8	87.7	87.7	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>=3000	88.2	89.1	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=2500	89.4	90.2	90.3	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>=2000	91.0	92.2	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>=1800	91.6	92.8	93.0	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>=1500	93.8	95.0	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>=1200	95.6	96.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=1000	96.2	97.4	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>=900	96.4	97.6	98.0	98.1	98.2	98.2	98.2	98.2	98.2	98.2
>=800	96.7	98.2	98.6	98.8	98.9	98.9	98.9	98.9	98.9	98.9
>=700	97.1	98.7	99.2	99.6	99.7	99.7	99.7	99.7	99.7	99.7
>=600	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=500	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=400	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=300	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=200	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=100	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=0	97.2	98.8	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 932

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR. HOUR : 2200 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

VISIBILITY (STATUTE MILES)									
CEILING	>=10	>=6	>=5	>=4	>=3	>=2	>=1	>=1/2	>=1/4
UNLIMITED	55.6	71.4	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=20000	56.5	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=18000	56.9	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>=16000	57.1	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>=14000	57.8	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>=12000	59.1	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1
>=10000	59.9	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>=9000	59.9	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2
>=8000	61.2	79.2	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=7000	61.3	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=6000	61.6	81.0	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>=5000	62.1	81.5	81.7	81.7	81.7	81.7	81.7	81.7	81.7
>=4500	62.5	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=4000	62.8	82.8	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=3500	63.9	84.6	84.7	84.8	84.8	84.8	84.8	84.8	84.8
>=3000	65.1	85.8	85.9	86.0	86.0	86.0	86.0	86.0	86.0
>=2500	66.3	87.4	87.5	87.6	87.6	87.6	87.6	87.6	87.6
>=2000	67.7	89.6	89.7	89.9	89.9	89.9	89.9	89.9	89.9
>=1800	68.2	90.6	90.7	91.0	91.0	91.0	91.0	91.0	91.0
>=1500	69.2	92.7	92.8	93.3	93.3	93.3	93.3	93.3	93.3
>=1200	70.6	95.0	95.1	95.8	95.8	95.8	95.8	95.8	95.8
>=1000	70.8	96.0	96.1	96.7	96.7	96.7	96.7	96.7	96.7
>=900	71.3	96.8	96.9	97.6	97.6	97.6	97.6	97.6	97.6
>=800	71.4	97.0	97.2	97.9	97.9	98.0	98.0	98.0	98.0
>=700	71.5	97.6	97.9	98.6	98.6	98.7	98.7	98.7	98.7
>=600	71.5	97.9	98.2	98.9	98.9	99.0	99.0	99.0	99.0
>=500	71.5	98.3	98.6	99.5	99.6	99.7	99.7	99.7	99.7
>=400	71.5	98.4	98.7	99.7	99.8	99.9	99.9	99.9	99.9
>=300	71.5	98.4	98.7	99.7	99.8	99.9	99.9	99.9	99.9
>=200	71.5	98.4	98.7	99.7	99.8	99.9	99.9	99.9	99.9
>=100	71.5	98.4	98.7	99.7	99.8	99.9	99.9	99.9	99.9
>=0	71.5	98.4	98.7	99.7	99.8	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS.: 943

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : APR  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	48.2	65.4	66.1	66.3	66.4	66.5	66.5	66.5	66.5	66.5
>=20000	50.3	68.7	69.3	69.6	69.7	69.8	69.8	69.8	69.8	69.8
>=18000	50.6	69.2	69.2	70.1	70.2	70.2	70.3	70.3	70.3	70.3
>=16000	50.9	69.6	70.3	70.5	70.6	70.7	70.7	70.7	70.7	70.7
>=14000	51.7	70.7	71.4	71.7	71.8	71.8	71.8	71.8	71.8	71.8
>=12000	52.6	71.8	72.5	72.8	72.8	72.9	72.9	72.9	72.9	72.9
>=10000	53.5	73.1	73.8	74.1	74.2	74.2	74.3	74.3	74.3	74.3
>=9000	53.7	73.3	74.0	74.2	74.3	74.4	74.4	74.4	74.4	74.4
>=8000	54.8	74.7	75.4	75.7	75.8	75.8	75.9	75.9	75.9	75.9
>=7000	55.1	75.4	76.1	76.3	76.4	76.5	76.5	76.5	76.5	76.5
>=6000	55.4	75.8	76.5	76.8	76.8	76.9	76.9	76.9	76.9	76.9
>=5000	56.0	76.6	77.3	77.6	77.7	77.7	77.8	77.8	77.8	77.8
>=4500	56.8	77.7	78.5	78.7	78.8	78.9	78.9	78.9	78.9	78.9
>=4000	57.4	78.6	79.4	79.6	79.8	79.8	79.8	79.8	79.8	79.8
>=3500	58.3	80.0	80.8	81.1	81.2	81.3	81.3	81.3	81.3	81.3
>=3000	59.8	81.9	82.7	83.0	83.1	83.2	83.2	83.2	83.2	83.2
>=2500	61.4	84.4	85.3	85.7	85.8	85.8	85.9	85.9	85.9	85.9
>=2000	63.2	87.4	88.4	88.8	88.9	89.0	89.0	89.0	89.0	89.0
>=1800	63.5	88.1	89.1	89.6	89.7	89.8	89.8	89.8	89.8	89.8
>=1500	64.6	90.5	91.7	92.3	92.5	92.6	92.6	92.6	92.6	92.6
>=1200	65.7	92.7	93.9	94.5	94.8	94.8	94.9	94.9	94.9	94.9
>=1000	66.2	94.3	95.6	96.3	96.6	96.7	96.8	96.8	96.8	96.8
>=900	66.4	95.0	96.3	97.0	97.3	97.4	97.5	97.6	97.6	97.6
>=800	66.5	95.4	96.9	97.6	98.0	98.1	98.2	98.2	98.2	98.2
>=700	66.6	95.8	97.4	98.2	98.5	98.6	98.6	98.6	98.6	98.6
>=600	66.6	96.6	96.2	97.8	98.6	99.0	99.1	99.3	99.3	99.3
>=500	66.6	96.6	96.3	98.9	98.9	99.4	99.5	99.6	99.6	99.6
>=400	66.6	96.4	98.1	99.0	99.5	99.5	99.7	99.8	99.8	99.8
>=300	66.6	96.4	98.2	99.1	99.5	99.6	99.8	99.9	99.9	99.9
>=200	66.6	96.4	98.2	99.1	99.5	99.7	99.9	100.0	100.0	100.0
>=100	66.6	96.4	98.2	99.1	99.5	99.7	99.9	100.0	100.0	100.0
>=0	66.6	96.4	98.2	99.1	99.5	99.7	99.9	100.0	100.0	100.0

TOTAL NO. OF OBS : 7517

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
N	1.1	.4	.4	.5	.6	.6	.6	.6	.6	.6	.6	.6	.0	2.4
NNE	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
NE	.2	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0
ENE	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8
E	.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
SE	.6	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8
SE	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4
SSE	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1
S	.6	.5	1.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3
SSW	1.0	1.8	1.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.2
SW	1.1	3.2	4.1	2.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.6
WSW	1.6	3.5	6.5	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	8.0
W	1.7	7.5	12.1	5.7	.8	.0	.0	.0	.0	.0	.0	.0	.0	27.7
WNW	1.2	2.9	2.8	1.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.8
NNW	1.8	2.8	1.1	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.4
NNW	.6	.3	.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
WNW	.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.1
CLM	.0	25.8	31.2	17.6	1.6	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ALL	13.6	25.8	31.2	17.6	1.6	.0	.0	.0	.0	.0	.0	.0	.0	6.8

NOTES : % = PERCENT &lt; • RS

TOTAL NO. OF OBS : 691

1 - SURFACE WINDS

0023239 : ALAMEA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 0400 LAST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPIED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEEDS (KNOTS)						TOTAL			MEAN WIND SPEED		
	16-01	1 - 31	4 - 61	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56
N	1.6	.9	.3	.5	.0	.0	.0	.0	.0	.0	.0	5.1
NNNE	.7	.4	.9	.1	.0	.0	.0	.0	.0	.0	.0	4.3
NE	.7	.4	.9	.0	.0	.0	.0	.0	.0	.0	.0	3.3
ENE	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5
E	1.6	1.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	3.8
ESE	.6	2.0	.3	.0	.6	.0	.0	.0	.0	.0	.0	4.5
SE	.4	1.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	5.3
SSE	.4	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	6.3
S	1.5	1.4	2.2	.7	.0	.1	.0	.0	.0	.0	.0	7.3
SSW	.5	2.3	2.1	.7	.0	.0	.0	.0	.0	.0	.0	7.1
SW	1.7	2.8	3.3	1.5	.5	.0	.0	.0	.0	.0	.0	7.0
WSW	.5	3.8	6.4	2.2	.2	.0	.0	.0	.0	.0	.0	13.4
W	2.1	5.6	9.6	5.0	.6	.0	.0	.0	.0	.0	.0	23.0
WNW	1.7	3.3	2.0	1.3	.1	.0	.0	.0	.0	.0	.0	8.1
NNW	1.5	1.5	1.0	1.3	.6	.0	.0	.0	.0	.0	.0	5.9
NNNW	.4	.6	.4	.8	.0	.0	.0	.0	.0	.0	.0	2.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7
ALL	15.2	27.5	28.4	14.5	1.5	1.1	0.0	0.0	0.0	0.0	0.0	100.0

NOTES : PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIGO QF RECORD : 1255-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
												%	WIND SPEED
N	1.1	1.8	1.9	.6	.0	.0	.0	.0	.0	.0	.0	5.4	6.6
NNE	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.8	4.4
NE	.0	.2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.2	5.5
ENE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
E	.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.5
ESE	.7	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	2.3	4.8
SE	1.4	1.8	.9	.6	.1	.0	.0	.0	.0	.0	.0	4.8	5.8
SSE	.6	1.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	3.3	5.6
S	2.0	3.4	1.3	.7	.1	.0	.0	.0	.0	.0	.0	7.6	5.7
SSW	1.4	2.7	1.8	.3	.0	.0	.0	.0	.0	.0	.0	6.3	5.6
SW	2.3	3.2	2.6	1.4	.0	.0	.0	.0	.0	.0	.0	9.6	6.7
WSW	1.1	3.9	2.6	1.6	.0	.0	.0	.0	.0	.0	.0	10.3	7.0
W	2.9	6.7	7.3	3.2	.1	.0	.0	.0	.0	.0	.0	20.2	7.2
NNW	.8	1.5	2.6	1.1	.0	.0	.0	.0	.0	.0	.0	6.0	7.5
NW	1.1	1.9	.9	1.0	.0	.0	.0	.0	.0	.0	.0	4.9	6.5
NNW	.4	.9	.8	.9	.0	.0	.0	.0	.0	.0	.0	3.0	8.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.5	0.0
ALL	16.7	31.4	25.3	11.8	.3	.0	.0	.0	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

		SPEED (KNOTS)												
16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	>56	%	MEAN	WIND SPEED
DIR.														
N	.2	.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.7	7.6
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	
ESE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5	
SE	.0	1.2	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.7	5.2	
SSE	.6	3.1	1.3	.0	.1	.0	.0	.0	.0	.0	.0	5.1	5.8	
S	3.2	8.2	1.5	.5	.2	.0	.0	.0	.0	.0	.0	13.6	5.1	
SSW	2.4	3.9	2.2	.4	.0	.0	.0	.0	.0	.0	.0	9.0	5.5	
SW	2.1	2.7	3.8	1.8	.0	.0	.0	.0	.0	.0	.0	10.7	7.0	
WSW	1.6	5.6	5.4	2.2	.0	.0	.0	.0	.0	.0	.0	14.9	7.1	
W	2.4	6.1	8.5	5.6	.3	.2	.0	.0	.0	.0	.0	23.2	8.2	
WNW	1.0	1.9	2.9	1.4	.3	.0	.0	.0	.0	.0	.0	7.6	7.9	
NNW	.5	1.9	2.6	.8	.1	.0	.0	.0	.0	.0	.0	5.9	7.6	
NNW	.3	1.2	.9	.5	.0	.1	.0	.0	.0	.0	.0	3.0	8.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	.0	36.7	30.4	13.7	1.0	.3	.0	.0	.0	.0	.0	2.2	.0	
ALL	15.6											100.0	6.8	

TOTAL NO. OF OBS : 92

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 49W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN	
												%	WIND SPEED	
N	.0	.3	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	10.8	
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	
NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	5.0	
ENE	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0	
E	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	9.5	
ESE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	5.0	
SE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	9.0	
SSE	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.5	6.0	
S	.0	.3	.3	.4	.1	.0	.0	.0	.0	.0	.0	.1.1	10.3	
SSW	.1	.9	.7	.8	.3	.1	.0	.0	.0	.0	.0	.0	2.9	10.3
SW	.2	1.0	3.1	2.2	.1	.1	.0	.0	.0	.0	.0	.6.6	10.1	
WSW	.1	2.3	6.9	6.7	.5	.0	.0	.0	.0	.0	.0	.0	16.4	10.3
W	.3	3.2	16.6	23.6	4.9	1.1	.1	.0	.0	.0	.0	.0	49.9	12.0
NNW	.4	.9	5.4	5.4	.8	.3	.0	.0	.0	.0	.0	.0	13.3	11.1
NW	.1	1.4	2.5	1.4	.0	.1	.0	.0	.0	.0	.0	.0	5.5	8.8
NNW	.5	1.0	.6	.3	.1	.1	.0	.0	.0	.0	.0	.0	2.1	8.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	0.0	0.0
ALL	1.1	11.9	36.9	41.0	7.1	1.8	.1	.0	.0	.0	.0	.0	100.0	11.1

TOTAL NO. OF OBS :

992

NOTES : \* = PERCENT < .05

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 1600 LST

### PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)

NOTES : PERCENT < .05

TOTAL NO. OF OBS : 92

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	>=56	TOTAL	%	MEAN WIND SPEED
N	.2	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.4
NNE	.1	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	7.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	12.5
S	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	12.2
SSW	.1	.3	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	0.2
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.4	1.9	4.6	4.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	12.2	9.9
W	.5	4.0	16.0	16.0	28.0	6.1	.7	.1	.0	.0	.0	.0	.0	57.6	12.0
NNW	.5	2.5	5.3	5.0	.9	.5	.0	.0	.0	.0	.0	.0	.0	14.8	10.3
NW	.6	1.9	1.5	0.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	5.1	7.9
NNW	.2	1.1	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	6.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	0.0
ALL	2.6	13.3	32.9	41.1	8.3	1.3	.1	.0	.0	.0	.0	.0	.0	100.0	10.9

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 992

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY  
HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

16 PT. DIR.	SPEED (KNOTS)					>=56	TOTAL	MEAN
	1 - 3	4 - 6	7-10	11-16	17-21			
N	.3	1.0	.2	.3	.0	.0	.0	.1
NNNE	.4	.2	.0	.0	.0	.0	.0	.0
NE	.1	.1	.0	.0	.0	.0	.0	.2
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.1	.3	.1	.0	.0	.0	.0	.4
ESE	.1	.3	.1	.0	.0	.0	.0	.5
SE	.3	.2	.2	.0	.0	.0	.0	.7
SSE	.0	.1	.3	.0	.0	.0	.0	.4
S	.2	.7	.5	.3	.1	.0	.0	.8
SSW	.5	1.1	1.5	.1	.0	.0	.0	3.2
SW	1.2	4.0	4.1	2.6	.2	.0	.0	12.2
WSW	1.7	6.7	9.8	2.8	.4	.0	.0	20.4
W	2.6	7.6	14.0	10.7	1.2	.2	.0	36.3
WNW	.7	2.4	4.5	1.9	.8	.0	.0	10.4
NNW	1.2	1.6	1.3	1.2	.0	.0	.0	5.3
NNW	.5	.4	.7	.5	.1	.0	.0	2.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	3.4
ALL	10.0	26.7	36.4	20.5	2.8	.2	.0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN	
													S	%	
N	.6	.7	.5	.3	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	2.1	6.7
NNE	.2	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.4
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.8
ENE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.5
E	.3	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.3
ESE	.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.6
SE	.5	.6	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.4	5.3
SSE	.3	.6	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.4	6.0
S	.9	1.8	1.0	.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	4.3	6.3
SSW	.8	1.6	1.4	.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	4.4	6.9
SW	1.1	2.3	3.1	1.8	.1	.0*	.0	.0	.0	.0	.0	.0	.0	8.4	7.9
WSW	.6	3.5	5.5	3.7	.4	.0*	.0	.0	.0	.0	.0	.0	.0	14.1	8.7
W	1.6	5.2	12.3	14.9	3.1	.7	.0*	.0	.0	.0	.0	.0	.0	37.8	10.8
NNW	.7	2.0	3.6	3.4	.7	.2	.0*	.0	.0	.0	.0	.0	.0	10.6	9.8
NW	.9	1.7	1.6	1.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	5.4	7.7
NNW	.7	.7	.6	.5	.0*	.0	.0	.0	.0	.0	.0	.0	.0	2.2	8.1
VAR	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	0.0
ALL	9.4	22.1	30.5	26.9	4.7	1.0	.1	.0	.0	.0	.0	.0	.0	100.0	9.6

TOTAL NO. OF OBS : 7935

NOTES : \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE						
	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	47.0	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
>=20000	48.0	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=18000	48.1	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=16000	48.1	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=14000	48.6	64.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=12000	48.9	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=10000	49.3	65.7	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
>=9000	49.6	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>=8000	50.4	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
>=7000	51.0	68.0	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
>=6000	51.1	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>=5000	51.3	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
>=4500	51.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
>=4000	52.0	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=3500	52.3	69.5	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=3000	52.9	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>=2500	53.7	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
>=2000	55.9	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=1800	56.4	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
>=1500	59.2	79.2	79.3	79.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
>=1200	62.1	84.1	84.2	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>=1000	63.8	88.2	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>=900	64.4	89.7	89.8	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
>=800	65.3	91.6	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>=700	65.7	93.3	93.5	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>=600	66.4	96.0	96.3	96.3	96.5	96.5	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
>=500	66.9	97.3	97.8	97.8	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=400	66.9	98.3	98.7	98.7	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=300	66.9	98.5	98.9	98.9	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=200	66.9	98.6	99.2	99.2	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	66.9	98.6	99.2	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	66.9	98.6	99.2	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)							>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	1/4	>=1						
UNLIMIT	39.3	53.7	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
>=20000	40.1	55.0	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
>=18000	40.2	55.1	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>=16000	40.4	55.3	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
>=14000	40.9	55.9	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
>=12000	41.4	56.5	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
>=10000	41.8	57.1	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>=9000	42.0	57.4	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
>=8000	42.6	58.4	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
>=7000	42.9	58.7	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9
>=6000	43.0	59.9	59.9	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
>=5000	43.2	59.2	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
>=4500	43.7	59.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
>=4000	43.9	60.2	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
>=3500	44.6	60.9	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>=3000	45.5	62.1	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
>=2500	47.1	63.8	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=2000	49.9	67.4	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>=1800	50.8	68.8	69.1	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=1500	54.0	73.5	73.8	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>=1200	57.9	79.5	79.8	79.8	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=1000	60.5	84.9	85.2	85.3	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
>=800	61.7	87.6	87.9	88.0	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>=600	62.4	90.0	90.3	90.4	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
>=700	63.2	92.1	92.4	92.7	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
>=600	63.4	94.4	94.9	95.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>=500	63.6	96.0	96.7	97.3	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=400	63.7	97.4	98.3	98.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>=300	63.7	97.7	98.7	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=200	63.7	97.7	98.7	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=100	63.7	97.7	98.7	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=0	63.7	97.7	98.7	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 984

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	33.4	48.9	49.7	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>=20000	34.0	50.5	51.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>=18000	34.2	50.8	51.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
>=16000	34.4	51.0	51.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8
>=14000	34.8	51.4	52.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
>=12000	35.8	52.5	53.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
>=10000	36.2	53.4	54.2	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>= 9000	36.5	53.7	54.5	55.6	55.6	55.6	55.6	55.6	55.6	55.6
>= 8000	36.9	54.6	55.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
>= 7000	37.2	55.1	55.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9
>= 6000	37.3	55.2	56.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
>= 5000	37.6	55.6	56.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
>= 4500	37.8	55.8	56.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
>= 4000	37.8	56.0	56.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8
>= 3500	38.3	56.6	57.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
>= 3000	38.7	57.4	58.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>= 2500	39.7	59.0	60.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
>= 2000	42.5	62.8	63.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>= 1800	43.4	64.1	65.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>= 1500	45.1	69.4	70.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 1200	49.0	76.7	78.3	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>= 1000	50.8	81.9	83.7	85.0	85.3	85.4	85.4	85.4	85.4	85.4
>= 900	51.1	84.1	86.2	87.5	87.8	87.9	87.9	87.9	87.9	87.9
>= 800	51.4	86.2	88.6	89.9	90.3	90.4	90.4	90.4	90.4	90.4
>= 700	51.7	88.4	91.0	92.4	92.8	93.1	93.1	93.1	93.1	93.1
>= 600	51.7	90.3	93.4	94.9	95.4	95.6	95.6	95.6	95.6	95.6
>= 500	51.9	91.3	95.0	96.8	97.3	97.5	97.5	97.5	97.5	97.5
>= 400	52.0	91.8	96.1	98.3	98.8	99.0	99.0	99.0	99.0	99.0
>= 300	52.0	92.1	96.5	98.6	99.4	99.6	99.6	99.6	99.6	99.6
>= 200	52.0	92.1	96.5	98.6	99.4	99.6	99.6	99.6	99.6	99.6
>= 100	52.0	92.1	96.5	98.6	99.4	99.6	99.6	99.6	99.6	99.6
>= 0	52.0	92.1	96.6	98.9	99.5	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 979

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	40.9	62.5	64.0	64.4	65.1	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=20000	43.0	66.1	67.5	67.9	68.6	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
>=18000	43.1	66.2	67.6	67.4	68.0	68.4	68.8	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=16000	43.1	66.2	67.7	68.1	68.8	69.1	69.4	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=14000	43.7	66.9	68.5	68.9	69.5	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=12000	44.1	67.4	69.0	69.4	70.0	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=10000	44.9	68.7	70.2	70.6	71.2	71.6	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>= 9000	45.1	68.8	70.3	70.7	71.3	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>= 8000	45.7	69.6	71.1	71.5	72.2	72.6	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>= 7000	45.7	69.7	71.2	71.6	72.3	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>= 6000	45.8	69.8	71.3	71.8	72.4	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>= 5000	46.3	70.4	72.0	72.4	73.0	73.4	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
>= 4500	46.6	70.7	72.3	72.7	73.3	73.7	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
>= 4000	46.8	71.1	72.7	73.1	73.7	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>= 3500	47.5	71.4	73.4	73.8	74.4	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 3000	48.8	73.5	75.2	75.6	76.2	76.6	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
>= 2500	49.9	75.5	77.1	77.5	78.1	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 2000	52.8	79.8	81.6	82.1	82.7	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 1800	53.4	80.9	82.6	83.2	83.8	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>= 1500	55.5	85.5	87.5	88.1	88.9	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>= 1200	56.5	89.0	91.0	91.6	92.5	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 1000	57.0	92.2	94.2	95.1	95.8	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>= 900	57.0	93.0	95.4	96.1	96.8	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 800	57.0	93.5	96.1	96.8	97.6	98.0	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>= 700	57.0	94.2	96.9	97.6	98.6	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>= 600	57.1	94.8	97.5	98.2	99.2	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	57.1	94.9	97.6	98.5	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	57.1	94.9	97.7	98.5	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 300	57.1	94.9	97.7	98.5	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 200	57.1	94.9	97.7	98.5	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	57.1	94.9	97.7	98.5	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	57.1	94.9	97.7	98.5	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 970

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)											
	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
>=10	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	76.9	76.9	76.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
>=20000	57.9	79.5	80.1	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2
>=18000	58.2	79.8	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=16000	58.4	80.0	80.7	80.7	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8
>=14000	58.9	81.0	81.6	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
>=12000	59.4	81.5	82.1	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>=10000	59.9	82.1	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
>=9000	60.1	82.3	82.9	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=8000	60.5	82.9	83.6	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
>=7000	60.7	83.1	83.8	83.8	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>=6000	61.2	83.5	84.1	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>=5000	61.5	84.1	84.7	84.7	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>=4500	61.8	84.4	85.0	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>=4000	62.6	85.3	85.9	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
>=3500	62.9	85.7	86.3	86.3	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
>=3070	63.9	87.2	87.8	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=2500	65.4	89.7	90.3	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=2000	67.4	93.0	93.6	93.6	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>=1800	67.9	93.8	94.5	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>=1500	68.5	95.3	96.2	96.4	96.5	96.5	96.5	96.5	96.5	96.6	96.6	96.6
>=1200	69.4	97.3	98.1	98.3	98.4	98.4	98.4	98.4	98.4	98.6	98.6	98.6
>=1000	69.6	97.8	98.8	99.0	99.2	99.2	99.2	99.2	99.2	99.3	99.3	99.3
>=900	69.6	98.0	99.0	99.2	99.4	99.4	99.4	99.4	99.4	99.6	99.6	99.6
>=800	69.6	98.1	99.1	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=700	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=600	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=500	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=400	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=300	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=200	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=100	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0
>=0	69.6	98.2	99.2	99.5	99.8	99.8	99.8	99.8	99.8	100.0	100.0	100.0

TOTAL NO. OF OBS : 967

## 2 - CEILING VS VISIBILITY

023339 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
FROM HOURLY OBSERVATIONS

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	56.6	79.6	79.8	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
>=20000	59.2	83.6	83.8	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=18000	59.5	84.1	84.4	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
>=16000	59.9	84.6	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>=14000	60.7	85.6	85.8	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
>=12000	61.3	86.2	86.4	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=10000	62.1	87.2	87.4	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
>=9000	62.2	87.3	87.5	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>=8000	63.1	88.6	88.8	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>=7000	63.3	89.2	89.4	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>=6000	63.4	89.3	89.5	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=5000	63.4	89.3	89.5	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=4500	63.5	89.4	89.7	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>=4000	63.6	89.6	89.9	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
>=3500	63.7	89.2	89.2	90.3	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=3000	64.2	90.7	91.0	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>=2500	65.4	92.2	92.5	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>=2000	66.5	94.0	94.3	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>=1800	66.7	94.6	95.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>=1500	67.0	96.3	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>=1200	67.2	97.4	97.9	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>=1000	67.7	98.3	98.9	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=900	67.7	98.5	99.1	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=800	67.7	98.7	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=700	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=600	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=500	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=400	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=300	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=100	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=0	67.7	98.9	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OES : 965

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=1/2	>=5/16	>=1/4	>=3/8
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4					
UNLIMIT	47.4	73.0	74.0	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>=20000	49.2	76.9	77.9	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>=18000	49.4	77.4	78.4	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>=16000	49.9	78.0	79.0	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
>=14000	50.9	79.4	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=12000	51.6	80.0	81.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=10000	52.4	81.0	82.2	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
>= 9000	52.6	81.3	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6
>= 8000	53.0	82.1	83.1	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 7000	53.1	82.5	83.5	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
>= 6000	53.1	82.6	83.6	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>= 5000	53.2	82.7	83.7	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 4500	53.3	82.9	83.9	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>= 4000	53.4	83.2	84.2	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>= 3500	53.6	83.8	84.9	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
>= 3000	54.4	85.0	86.0	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
>= 2500	54.9	85.6	86.6	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>= 2000	55.7	86.5	87.6	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 1800	56.5	87.8	88.8	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>= 1500	57.2	89.6	90.9	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>= 1200	57.6	91.1	92.6	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
>= 1000	58.1	92.9	94.3	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>= 900	58.6	93.9	95.2	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 800	59.0	95.1	96.7	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>= 700	59.1	95.7	97.4	98.5	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
>= 600	59.1	96.4	98.2	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 500	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 400	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 300	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 200	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 100	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 0	59.1	96.4	98.3	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 964

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAY  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							VISIBILITY (STATUTE MILES)								
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	53.3	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
>=00000	54.3	70.5	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=18000	54.6	70.9	70.9	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
>=6000	55.1	71.5	71.5	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=14000	55.9	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=12000	56.5	73.1	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=10000	57.3	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=9000	57.6	74.6	74.6	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
>=8000	58.2	75.3	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>=7000	58.0	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>=6000	59.0	76.2	76.2	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>=5000	59.2	76.6	76.6	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
>=4500	59.5	76.9	76.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
>=4000	59.6	77.1	77.1	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
>=3500	59.8	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=3000	60.3	78.0	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
>=2500	60.8	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=2000	61.8	79.6	79.6	79.8	79.8	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>=1300	62.2	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=1500	64.1	83.8	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>=1200	65.4	86.5	86.6	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=1000	66.8	90.7	90.9	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
>=900	66.8	91.8	92.0	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
>=800	67.7	94.1	94.4	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>=700	68.1	96.1	96.4	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>=600	68.1	97.3	97.5	97.9	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=500	68.2	98.2	98.7	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=400	68.2	98.8	99.3	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	68.2	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 981

2 - CEILING VS VISIBILITY

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY HOUR : ALL

**PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)**

VISIBILITY (STATUTE MILES)									
CEILING	>=10	>=6	>=5	>=4	>=3	>=2	>=2	>=1 1/2	>=1 1/4
UNLIMIT	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=20000	48.2	65.6	66.1	66.4	66.5	66.5	66.5	66.5	66.5
>=18000	48.4	65.5	68.2	68.7	69.0	69.1	69.1	69.1	69.1
>=16000	48.6	65.5	68.0	69.0	69.3	69.4	69.4	69.4	69.4
>=14000	49.3	69.6	68.7	69.3	69.6	69.7	69.7	69.7	69.7
>=12000	49.8	70.2	70.1	70.4	70.5	70.5	70.6	70.6	70.6
>=10000	50.4	71.1	71.7	71.9	72.0	72.1	72.1	72.1	72.1
>=9000	50.7	71.4	71.9	72.2	72.3	72.3	72.4	72.4	72.4
>=8000	51.3	72.3	72.8	73.1	73.2	73.3	73.3	73.3	73.3
>=7000	51.5	72.7	73.3	73.6	73.6	73.7	73.7	73.7	73.7
>=6000	51.7	72.9	73.8	73.8	73.9	73.9	73.9	73.9	73.9
>=5000	51.9	73.2	73.8	74.0	74.1	74.2	74.2	74.2	74.2
>=4500	52.2	73.5	74.1	74.3	74.4	74.5	74.5	74.5	74.5
>=4000	52.4	73.9	74.4	74.7	74.8	74.9	74.9	74.9	74.9
>=3500	52.8	74.4	75.0	75.2	75.3	75.4	75.4	75.4	75.4
>=3000	53.6	75.4	76.0	76.3	76.4	76.5	76.5	76.5	76.5
>=2500	54.6	76.9	77.5	77.8	77.9	77.9	77.9	77.9	77.9
>=2000	56.5	79.7	80.3	80.6	80.7	80.8	80.8	80.8	80.8
>=1800	57.1	80.6	81.3	81.6	81.6	81.8	81.8	81.8	81.8
>=1500	58.9	84.0	84.8	85.0	85.3	85.3	85.3	85.3	85.3
>=1200	60.6	87.7	88.5	89.0	89.1	89.2	89.2	89.2	89.2
>=1000	61.8	90.8	91.7	92.2	92.4	92.5	92.5	92.5	92.5
>=900	62.1	92.1	93.0	93.5	93.7	93.8	93.8	93.8	93.8
>=800	62.5	93.4	94.5	95.0	95.3	95.3	95.4	95.4	95.4
>=700	62.8	94.6	95.8	96.4	96.6	96.7	96.8	96.8	96.8
>=600	62.9	95.8	97.1	97.8	98.0	98.1	98.2	98.2	98.2
>=500	63.0	96.4	97.8	98.6	98.9	99.0	99.0	99.1	99.1
>=400	63.0	96.8	98.4	99.2	99.5	99.5	99.6	99.7	99.7
>=300	63.0	96.9	98.5	99.3	99.7	99.7	99.8	99.8	99.8
>=200	63.0	97.0	98.5	99.4	99.7	99.8	99.9	99.9	99.9
>=100	63.0	97.0	98.5	99.4	99.7	99.8	99.9	99.9	99.9
>=0	63.0	97.0	98.6	99.4	99.8	99.8	99.9	100.0	100.0

TOTAL NO. OF OBS : 7791

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>50	TOTAL	WIND SPEED
	16 PT.	1 - 31	4 - 61	7-101	11-161	17-211	22-271	28-331	34-401	41-471			
N	.6	.8	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.9	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.6	1.6	1.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
SW	1.2	3.4	5.6	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
WSW	2.4	4.7	9.1	4.3	.1	.0	.0	.0	.0	.0	.0	.0	.0
W	2.4	7.3	14.9	8.1	1.2	.3	.0	.0	.0	.0	.0	.0	.0
WNW	1.8	2.5	2.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	1.5	1.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.4	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLW	0.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	13.6	25.9	35.7	16.1	1.5	.3	.0	.0	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=56	TOTAL	MEAN WIND SPEED	
	16 PT.	31 4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	1.4	1.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	3.5
NNE	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.4
NE	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.5
ENE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	2.5
E	.7	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.1
ESE	.7	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	3.6
SE	.2	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	6.3
SSE	.3	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.8
S	.8	1.5	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	3.6	6.1
SSW	.9	1.8	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	5.6	6.6
SSE	.8	2.7	1.2	1.5	.0	.0	.0	.0	.0	.0	.0	.0	8.9	7.5
WSW	1.5	3.9	9.1	3.3	.0	.0	.0	.0	.0	.0	.0	.0	17.7	8.1
W	2.6	8.3	11.9	7.8	.3	.0	.0	.0	.0	.0	.0	.0	30.9	8.3
NNW	1.7	2.6	3.2	.9	.0	.0	.0	.0	.0	.0	.0	.0	8.4	6.6
NW	1.7	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	4.0
NNW	.7	.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.8	5.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
ALL	15.1	27.5	32.2	14.4	.5	.0	.0	.0	.0	.0	.0	.0	100.0	6.4

TOTAL NO. OF OBS. : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN												
		1	3	4	-	6	7	-	10	11	-	16	22	-	27	28	-	33	34	-	40	41	-	47	48	-
N	1.2	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.8	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.6	2.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	1.4	1.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	2.7	2.4	1.6	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSW	1.8	2.0	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SW	1.7	4.1	3.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
WSW	2.1	5.0	5.3	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
W	1.8	7.7	11.9	4.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.9	1.8	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.4	2.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NNW	1.4	1.7	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	17.2	32.0	28.1	9.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1000 LST

PEPERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)					TOTAL	MEAN WIND SPEED
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21		
N	.1	.4	.3	.6	.0	.0	.0	.8
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.4	.8	.0	.0	.0	.0	.0	.0
SSE	1.1	2.0	.3	.1	.0	.0	.0	.9
S	3.2	4.4	.6	.4	.0	.0	.0	3.5
SSW	1.8	3.6	1.4	.3	.0	.0	.0	4.4
SW	2.0	4.4	4.1	1.2	.0	.0	.0	5.2
WSW	2.8	6.3	7.1	3.4	.1	.0	.0	11.7
W	2.6	6.6	11.5	7.1	.9	.0	.0	19.7
WNW	1.1	2.0	3.1	1.0	.1	.0	.0	7.4
NNW	.3	3.0	2.3	.5	.0	.0	.0	6.1
NN	.3	1.8	.5	.5	.0	.0	.0	3.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0
ALL	15.8	35.2	31.1	14.5	1.1	.0	.0	100.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED		
		16	31	4	-	61	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56	
N	0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.0
NNE	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	0	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.3	12.3
S	1	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	6.6
SSW	1	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	6.7
SW	1	1.1	2.2	2.7	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.4	9.9
WSW	1	1.5	6.3	8.1	7	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0	16.8	11.1
W	1	3.4	16.4	25.6	4.7	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	51.2	11.9
NNW	1	2.5	6.5	4.9	.3	.2	.0	.0	.0	.0	.0	.0	.0	14.5	10.0
NW	2	1.5	3.1	1.2	0	0	0	0	0	0	0	0	0	6.0	8.3
NW	0	1.0	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.2	7.6
NNW	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	.8	12.4	36.1	43.1	5.6	1.8	.1	.0	.0	.0	.0	.0	.0	100.0	10.9

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=56	TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47			
N	.0	.2	.2	.1	.0	.0	.0	.2	.0	.0	.0	.5	7.8
NNE	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	17.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
S	.0	.1	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	0.0
SSW	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.6	9.2
SW	.0	.5	.8	.1	.1	.3	.0	.0	.0	.0	.0	2.8	11.1
WSW	.1	.6	3.4	7.2	.9	.3	.0	.0	.0	.0	.0	12.6	12.2
W	.0	1.2	12.9	37.9	9.6	2.0	.0	.0	.0	.0	.0	63.6	13.6
NNW	.0	.7	6.0	7.3	.8	.2	.0	.0	.0	.0	.0	15.1	11.2
NW	.0	.8	2.3	.4	.0	.0	.0	.0	.0	.0	.0	3.5	8.4
NNN	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	4.8	26.2	54.5	11.9	2.5	.0	.0	.0	.0	.0	100.0	12.0
ALL	.1	4.8	26.2	54.5	11.9	2.5	.0	.0	.0	.0	.0	100.0	12.7

TOTAL NO. OF OBS : 960

NOTES :  
 \* = PERCENT < .05

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=50	TOTAL %	MEAN WIND SPEED
	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	.3	.9	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	6.1
NNE	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5
NE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0
S	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.4
SSW	.0	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	8.4
SW	.3	.6	2.0	1.1	.4	.0	.0	.0	.0	.0	.0	.0	9.5
WSW	.2	2.6	4.6	5.5	1.1	.0	.0	.0	.0	.0	.0	.0	10.5
W	.4	4.1	17.1	31.1	6.9	.6	.0	.0	.0	.0	.0	.0	60.2
NNW	.0	1.6	5.3	7.9	.6	.0	.0	.0	.0	.0	.0	.0	11.3
NW	.4	1.6	1.4	.2	0	.0	.0	.0	.0	.0	.0	.0	3.5
NNW	.3	1.2	.3	0	0	.0	.0	.0	.0	.0	.0	.0	1.9
VAR	.0	-.9	0	-.9	-.9	0	0	0	0	0	0	0	0.0
CLM	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	2.5	13.9	30.8	42.1	6.3	.6	.0	.0	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

1 ~ SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=50	TOTAL	MEAN WIND SPEED			
	1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	3.7
NNE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.0
NE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.5
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.3
ESE	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	7.3
SE	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.8
SSE	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.4
S	.5	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	5.6
SSW	.4	1.6	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	6.1
SW	2.0	3.7	3.7	2.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.7	7.1
WSW	2.0	5.9	8.4	4.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	21.5	8.1
W	2.7	7.8	16.0	13.5	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	41.7	9.5
WNW	.9	2.8	3.9	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.4	7.9
NNW	.4	1.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	6.3
NNW	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	10.9	25.9	33.9	22.4	2.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	100.0	7.9

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	%	MEAN WIND SPEED	
DIREC.																
N	.5	.6	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	4.5
NNE	.2	.2	.0	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.1
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6
ENE	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0*	2.5
E	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.2
ESE	.3	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	4.4
SE	.2	.4	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.0
SSE	.4	.6	.1	.1	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.9
S	1.1	1.3	.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	5.2
SSW	.7	1.4	1.0	.3	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	6.1
SW	1.0	2.6	3.3	1.6	1.1	.2*	.0	.0	.0	.0	.0	.0	.0	.0	8.6	7.7
WSW	1.4	3.8	6.7	4.9	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	17.2	8.8
W	1.6	5.8	14.1	16.9	3.1	.6	.0*	.0	.0	.0	.0	.0	.0	.0	42.0	10.7
WNW	.8	2.1	4.1	2.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.9	8.9
NNW	.6	1.6	1.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	6.4
NNN	.5	1.0	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	5.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7	0.0
ALL	9.5	22.2	31.8	27.0	4.1	.7	.0*	.0	.0	.0	.0	.0	.0	.0	100.0	8.5

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 7680

2 - CEILING VS VISIBILITY

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH: JUN HOUR: 0100 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL NO. OF ORS : 955

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE-SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2					
UNLIMIT	39.3	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
>=20000	39.7	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
>=18000	39.9	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
>=16000	39.9	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
>=14000	40.3	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
>=12000	40.4	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
>=10000	40.6	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
>= 9000	40.6	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
>= 8000	41.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
>= 7000	41.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>= 6000	41.3	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
>= 5000	41.3	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
>= 4500	41.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>= 4000	41.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
>= 3500	41.6	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8
>= 3000	42.1	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
>= 2500	42.3	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>= 2000	43.2	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
>= 1800	43.7	58.3	58.4	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
>= 1500	46.3	62.6	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>= 1200	49.3	68.0	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
>= 1000	53.5	76.9	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>= 900	55.5	80.7	81.2	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4
>= 800	57.4	85.0	85.5	85.7	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8
>= 700	58.1	88.0	88.5	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
>= 600	59.2	91.4	92.0	92.7	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
>= 500	59.5	93.5	94.5	95.1	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
>= 400	59.7	95.9	97.1	97.9	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>= 300	59.8	96.8	98.1	99.0	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 200	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 100	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 0	59.8	96.9	98.2	99.1	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NO. OF OBS : 955

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE							
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMITED	31.2	45.3	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
>=20000	31.6	46.3	47.0	47.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	45.9
>=18000	31.6	46.3	47.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
>=16000	31.6	46.4	47.1	47.1	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2
>=14000	32.0	47.1	47.7	47.7	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
>=12000	32.6	48.0	48.6	48.6	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
>=10000	33.0	48.4	49.1	49.1	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2
>=9000	33.1	48.5	49.2	49.2	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
>=8000	33.1	48.7	49.4	49.4	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>=7000	33.3	49.2	49.8	49.8	49.8	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>=6000	33.4	49.4	50.0	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
>=5000	33.4	49.4	50.0	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
>=4500	33.5	49.6	50.2	50.2	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3
>=4000	33.5	49.7	50.3	50.3	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>=3500	33.5	49.8	50.4	50.4	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
>=3000	33.7	50.0	50.6	50.6	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7
>=2500	34.1	50.6	51.4	51.4	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
>=2000	35.7	53.4	54.1	54.1	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
>=1800	37.0	55.0	55.9	55.9	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
>=1500	39.9	60.0	61.0	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
>=1200	42.5	66.6	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=1000	45.7	76.4	76.4	76.4	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
>=900	46.6	78.2	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
>=800	47.5	82.7	84.7	85.1	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3	85.3
>=700	48.2	85.6	87.6	88.8	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=600	48.6	88.2	91.3	92.6	93.1	93.1	93.1	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2
>=500	48.7	89.2	94.0	95.7	96.2	96.2	96.2	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3
>=400	48.8	91.4	95.9	97.9	98.5	98.6	98.6	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7
>=300	48.8	91.7	96.2	98.6	99.6	99.7	99.7	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9
>=200	48.9	91.8	96.3	98.7	99.7	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0
>=100	48.9	91.8	96.3	98.7	99.7	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0
>=0	48.9	91.8	96.3	98.7	99.7	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 952

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)								>=1/4	>=1/2	>=1	>=1/4	>=1/2	>=1	>=3/4	>=5/8	>=5/16	>=1/4
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2										
UNLIMIT	37.8	60.7	62.4	63.0	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3
>=20000	38.5	62.1	63.9	64.5	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=18000	38.5	62.1	63.9	64.5	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=16000	38.6	62.3	64.1	64.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=14000	38.9	62.8	64.6	65.1	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>=12000	39.1	63.3	65.4	65.9	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
>=10000	39.6	63.7	65.8	66.4	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>=9000	39.7	63.8	65.9	66.5	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
>=8000	39.7	63.9	66.0	66.6	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>=7000	39.9	64.1	66.2	66.8	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=6000	40.0	64.2	66.4	66.9	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>=5000	40.0	64.2	66.4	66.9	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>=4500	40.2	64.5	66.6	67.1	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>=4000	40.3	64.6	66.7	67.2	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
>=3500	40.5	64.5	68.9	67.0	67.5	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>=3000	41.0	65.5	67.6	68.1	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=2500	41.9	66.7	68.8	69.3	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=2000	43.9	70.0	72.2	72.7	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=1800	45.1	72.0	74.2	74.7	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
>=1500	48.2	78.3	80.5	81.0	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
>=1200	50.6	83.2	85.2	86.5	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
>=1000	52.5	89.2	91.8	92.4	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>=900	52.5	91.2	94.0	94.7	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>=800	53.2	93.8	96.5	97.4	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=700	53.5	95.0	97.9	98.8	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=600	53.5	95.1	98.0	98.9	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=500	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=400	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=300	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	53.5	95.4	98.3	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 948

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)															
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=1	>=3/4	>=1/2	>=5/8	>=1/16	>=1/4	>=0
UNLIMIT	58.7	81.4	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>=20000	59.7	83.7	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
2518000	60.0	84.2	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>=16000	60.2	84.4	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
>=14000	60.6	85.0	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
>=12000	61.5	86.1	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
>=10000	62.2	87.3	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>= 9000	62.3	87.4	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
>= 8000	62.3	87.5	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>= 7000	62.3	87.6	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
>= 6000	62.4	87.8	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>= 5000	62.5	87.9	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>= 4500	62.5	87.9	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>= 4000	62.8	88.2	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>= 3500	62.8	88.2	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>= 3000	63.1	88.6	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>= 2500	63.9	89.8	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>= 2000	65.5	91.7	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
>= 1800	66.0	92.3	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 1500	67.3	94.8	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 1200	68.0	96.4	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
>= 1000	68.4	98.2	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 900	68.5	98.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>= 800	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 700	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	68.5	98.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OBS : 947

2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
HOUR : 1600 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE FROM MOBILE OBSERVATIONS<sup>1</sup>

TOTAL NO. OF 095 : 931

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=10 >=6 >=5 >=4 >=3 >=2 >=1/2 >=2 >=1 >=1/4 >=1/2 >=5/8 >=5/16 >=1/4 >=0			
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=2	>=1	>=1/4				
UNLIMITED	49.0	73.7	74.6	75.1	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>=200000	49.9	77.4	78.2	78.7	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
>=180000	49.9	77.5	78.3	78.8	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
>=160000	50.2	77.8	78.6	79.2	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>=140000	51.3	79.3	80.1	80.7	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
>=120000	51.6	79.8	80.7	81.2	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6
>=100000	51.8	80.2	81.1	81.6	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>= 90000	51.9	80.3	81.2	81.7	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>= 80000	52.4	80.9	81.7	82.3	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
>= 70000	52.5	91.3	82.2	82.7	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 60000	52.5	81.4	82.3	82.8	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>= 50000	52.6	81.5	82.4	82.9	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 45000	52.6	81.6	82.5	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 40000	52.6	81.6	82.5	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
>= 35000	52.7	81.7	82.6	83.1	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>= 30000	52.8	82.1	83.0	83.5	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 25000	53.2	82.5	83.4	84.0	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
>= 20000	53.5	82.9	83.9	84.4	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
>= 18000	53.5	83.2	84.2	84.7	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>= 15000	54.2	85.3	86.3	86.9	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>= 12000	55.4	87.7	88.9	89.5	90.0	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>= 10000	56.5	90.4	91.8	92.5	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>= 9000	57.1	91.6	93.1	95.8	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
>= 8000	57.5	93.6	95.1	95.9	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
>= 7000	57.7	95.1	96.7	97.5	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>= 6000	57.8	96.0	97.6	98.6	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>= 5000	57.8	96.5	98.2	99.1	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 4000	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 3000	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 2000	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 1000	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	57.8	96.6	98.3	99.3	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 936

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	49.7	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
>=20000	50.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
2218000	50.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
>=16000	50.6	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=14000	51.1	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=12000	51.3	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>=10000	51.5	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>=9000	51.5	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
>=8000	51.2	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>=7000	52.1	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=6000	52.1	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=5000	52.4	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=4500	52.5	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>=4000	52.5	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
>=3500	52.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>=3000	52.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>=2500	52.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>=2000	53.4	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>=1800	53.7	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>=1500	55.4	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=1200	57.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>=1000	60.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
>=900	60.7	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
>=800	61.4	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
>=700	62.1	92.7	92.9	92.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>=600	62.6	94.8	95.1	95.2	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
>=500	63.0	96.9	97.4	97.5	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>=400	63.1	98.1	98.9	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=300	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	63.1	98.7	99.6	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 957

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)								>=1/4				>0		
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	46.1	65.2	65.8	65.8	65.9	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
>=20000	46.8	67.1	67.7	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
>=18000	47.0	67.3	67.8	68.0	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
>=16000	47.1	67.4	68.0	68.1	68.2	68.2	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=14000	47.6	68.2	68.7	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>=12000	47.9	68.8	69.4	69.5	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=10000	48.4	69.3	69.9	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>=9000	48.5	69.4	70.0	70.2	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
>=8000	48.7	69.8	70.4	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6
>=7000	48.9	70.0	70.6	70.8	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>=6000	48.9	70.1	70.7	70.9	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
>=5000	49.0	70.2	70.8	70.9	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
>=4500	49.1	70.3	70.9	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>=4000	49.2	70.4	71.0	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
>=3500	49.3	70.6	71.2	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
>=3000	49.6	70.9	71.6	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=2500	50.1	71.6	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=2000	51.2	73.3	74.0	74.1	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=1800	51.7	74.2	74.9	75.1	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>=1500	53.6	77.7	78.5	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=1200	55.6	81.8	82.6	82.8	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=1000	57.7	86.6	87.5	87.7	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=900	58.4	88.6	89.6	89.9	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
>=800	59.2	91.1	92.2	92.6	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>=700	59.6	92.9	94.1	94.5	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>=600	59.9	94.4	95.8	96.3	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
>=500	60.1	95.6	97.2	97.8	98.1	98.1	98.1	98.1	98.1	98.2	98.2	98.2	98.2	98.2	98.2
>=400	60.3	96.4	98.2	98.9	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=300	60.3	96.8	98.6	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=200	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=100	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	60.3	96.8	98.6	99.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 7581

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JULY HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						TOTAL	MEAN
		1-10	11-16	17-21	22-27	28-33	34-40		
N	.3	.1	.0	.0	.0	.0	.0	.0	2.5
NNE	.2	.1	.0	.0	.0	.0	.0	.0	3.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.1	.0	.0	.0	.0	.0	.1	6.0
ESE	.1	.6	.1	.0	.0	.0	.0	.0	6.9
SE	.0	.3	.0	.0	.0	.0	.0	.0	4.7
SSE	.0	.2	.0	.0	.0	.0	.0	.0	5.0
S	.5	.5	.6	.0	.0	.0	.0	.0	1.6
SSW	.6	.6	1.7	.3	.1	.0	.0	.0	5.3
SW	1.1	2.9	6.9	2.8	1.1	.0	.0	.0	7.2
WSW	.9	6.1	10.8	5.7	.1	.0	.0	.0	8.4
W	2.4	8.4	14.6	6.1	.5	.0	.0	.0	23.7
NNW	1.6	4.6	3.6	.2	.0	.0	.0	.0	8.4
NN	1.5	2.0	.5	.0	.0	.0	.0	.0	10.1
NNW	.8	.9	.1	.0	.0	.0	.0	.0	5.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	4.3
CLM	.0	.0	.0	.0	.0	.0	.0	.0	3.6
ALL	10.1	27.5	38.9	17.1	.9	.0	.0	.0	5.4
									0.0
									100.0
									7.3

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR. 1	DIR. 2	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED	
		16 PT.	1 - 3	4 - 6	7 - 10	11-16	17-21	22-27	28-33	34-40	41-47
N	1.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
E	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
SE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.1	.3	.7	.2	.0	.0	.0	.0	.0	.0	.0
SSW	.5	1.6	1.8	1.1	.0	.0	.0	.0	.0	.0	.0
SW	1.1	4.1	7.6	1.6	.1	.0	.0	.0	.0	.0	.0
WSW	1.4	5.6	9.5	4.5	.0	.0	.0	.0	.0	.0	.0
W	3.0	9.1	13.9	6.0	.2	.1	.0	.0	.0	.0	.0
NNW	2.1	4.1	1.9	.5	.0	.0	.0	.0	.0	.0	.0
NW	1.1	2.2	.2	.0	.0	.0	.0	.0	.0	.0	.0
NNW	1.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	13.1	29.4	35.8	13.0	.3	.1	.0	.0	.0	100.0	.65

TOTAL NO. OF OBS : 992

NOTES : PERCENT &lt; .05

! - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL  
HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=56	TOTAL	MEAN	
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	.9	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	4.0
NNE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
E	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
ESE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.8
SE	.3	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	4.8
SSE	.5	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	5.0
S	1.3	1.3	1.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	3.8	5.6
SSW	1.4	2.1	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	6.3	6.2
SW	1.5	5.1	5.4	1.0	.0	.0	.0	.0	.0	.0	.0	.0	13.4	6.8
WSW	1.8	4.5	7.8	2.4	.2	.0	.0	.0	.0	.0	.0	.0	16.7	7.5
W	3.2	10.3	10.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	26.5	7.3
NNW	1.0	4.2	2.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.7	5.4
NW	2.0	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	3.7
NNW	1.9	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	3.5
VAR	-.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
ALL	16.2	31.8	30.5	9.2	.3	.0	.0	.0	.0	.0	.0	.0	100.0	5.7

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>=50	TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21			
N	*4	*8	*1	*0	*0	*0	*0	*0	4.4
NNE	*2	*0	*0	*0	*0	*0	*0	*0	2.5
NE	*0	*1	*0	*0	*0	*0	*0	*0	4.0
ENE	*0	*0	*0	*0	*0	*0	*0	*0	0.0
E	*1	*0	*0	*0	*0	*0	*0	*0	3.0
ESE	*0	*1	*0	*0	*0	*0	*0	*0	4.0
SE	*2	*9	*1	*0	*0	*0	*0	*0	4.4
SSE	*3	*9	*4	*0	*0	*0	*0	*0	5.2
S	*2	*1	*3	*5	*2	*0	*0	*0	4.2
SSW	1-6	2.0	*8	*2	*0	*0	*0	*0	5.1
SW	2.0	*4.7	*5.3	*4.9	*4.0	*4.0	*0	*0	6.4
WSW	3.3	7.5	8.9	7.5	*0	*0	*0	*0	7.2
W	3.1	11.1	11.5	6.0	*2	*0	*0	*0	32.0
NNW	*9	3.0	3.4	*7	*1	*0	*0	*0	8.2
NW	*5	2.0	2.5	*2	*0	*0	*0	*0	6.5
NNW	*5	1.3	*4	*0	*0	*0	*0	*0	5.1
VAR	*0	*0	*0	*0	*0	*0	*0	*0	0.0
CLM	*0	*0	*0	*0	*0	*0	*0	*0	0.0
ALL	15.3	35.8	34.0	11.8	*3	*0	*0	*0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>=56		
N	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	8.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
SE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
S	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.3	6.0
SSW	.0	.1	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	9.0
SW	.0	.7	3.6	2.4	.1	.0	.0	.0	.0	.0	.0	.6	9.9
WSW	.2	1.2	7.3	5.3	.0	.2	.0	.0	.0	.0	.0	14.2	10.2
W	.3	4.6	19.3	21.3	.0	.1	.0	.0	.0	.0	.0	47.6	10.6
NNW	.1	2.9	9.6	5.9	.4	.0	.0	.0	.0	.0	.0	19.0	9.7
NN	.1	2.4	5.7	1.1	.1	.0	.0	.0	.0	.0	.0	9.4	8.5
NNW	.1	.2	1.1	.2	.0	.0	.0	.0	.0	.0	.0	1.6	7.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	0.0
ALL	1.0	12.4	47.3	36.3	2.6	.3	.0	.0	.0	.0	.0	100.0	10.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

SUGAR WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1984  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL HOUR : 1600 ST

**PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)**

16 PT. DIR.	1 - 3   4 - 6   7 - 10   11 - 16   17 - 21   22 - 27   34 - 40   41 - 47   48 - 55   > 56 	SPEED (KNOTS)								TOTAL & WIND SPEED
		1	2	3	4	5	6	7	8	
N	0	.1	.0	.1	.0	.0	.0	.0	.2	8.0
NNNE	0	.1	.0	.0	.0	.0	.0	.0	.1	5.0
NE	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
S	0	.0	.0	.1	.0	.0	.0	.0	.1	12.0
SSW	0	.0	.2	.0	.0	.0	.0	.0	.2	9.5
SW	0.5	1.4	1.0	.1	.0	.0	.0	.0	3.0	10.2
WSW	1.4	3.5	5.4	.7	.1	.0	.0	.0	11.2	11.4
W	2.1	16.3	33.2	7.3	1.0	.1	.0	.0	59.8	12.6
WNW	2.1	7.9	10.1	.8	.1	.0	.0	.0	19.9	11.2
NNW	0	.7	7.0	.6	.0	.0	.0	.0	4.3	8.4
NNNW	0	.1	.3	.6	.1	.0	.0	.0	1.1	7.6
VAR	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLW	0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	3.3	33.0	50.7	8.9	1.2	.1	.0	.0	100.0	11.8

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS.: 991

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						>=50	TOTAL	MEAN WIND SPEED
		1	3	6	10	11-16	17-21			
N	.2	.5	.2	.0	.0	.0	.0	.0	.0	5.0
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.2	6.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.1	4.0
S	.1	.0	.0	.0	.0	.0	.0	.0	.2	7.0
SSW	.0	.2	.0	.0	.0	.0	.0	.0	.4	6.0
SW	.0	1.8	3.3	3.2	4.0	4.0	4.0	.0	6.1	8.4
WSW	.1	2.2	6.2	4.4	2	0	0	.0	13.1	9.7
W	.5	4.9	20.4	25.5	4.1	.3	.0	.0	55.8	11.2
NNW	.4	3.2	8.0	5.9	.6	.1	.0	.0	18.2	9.8
NW	.0	1.7	1.7	1.3	.0	.0	.0	.0	3.7	7.1
NNW	.1	.6	.4	.0	.0	.0	.0	.0	1.1	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.2	0.0
ALL	1.4	15.4	40.5	37.1	4.9	.4	.0	.0	100.0	10.2

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56	
N	.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3
ENE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3
SE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
SSE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1.4
SSW	.4	1.1	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.5.1
SW	1.3	4.0	5.0	1.4	.3	.0	.0	.0	.0	.0	.0	3.1
WSW	1.1	6.6	8.4	5.6	.1	.0	.0	.0	.0	.0	.0	12.1
W	2.1	8.8	20.7	10.3	.9	.1	.0	.0	.0	.0	.0	42.8
WNW	.9	4.0	3.5	1.5	.0	.0	.0	.0	.0	.0	.0	10.0
NNW	.8	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	2.7
NNN	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALL	8.3	27.6	39.7	19.6	1.3	.2	.0	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN		
		1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	>=47	>=56	% WIND	% SPEED
N	.4	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	4.3
NNE	.1	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5
NE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6
ENE	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.8
E	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.8
ESE	.1	.2	.0*	.0	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.4	5.0
SE	.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.4
SSE	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	5.1
S	.6	.5	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.3
SSW	.6	1.0	1.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	.0	2.8	6.4
SW	.9	3.0	4.9	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	10.3	7.7
WSW	1.1	4.4	7.8	4.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	16.1	8.6
W	1.9	7.4	15.8	14.4	1.9	.2	.0*	.0	.0	.0	.0	.0	.0	41.6	9.8
NNW	.9	3.4	5.0	3.1	.2	.0*	.0	.0	.0	.0	.0	.0	.0	12.7	8.5
NW	.7	1.7	1.8	.3	.0*	.0	.0	.0	.0	.0	.0	.0	.0	4.5	6.4
NNN	.6	.7	.4	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	4.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	0.0
ALL	8.2	23.2	37.5	24.3	2.4	.3	.0	.0	.0	.0	.0	.0	.0	100.0	8.3

TOTAL NO. OF OBS : 7934

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	33.6	48.9	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1
>=20000	33.6	49.1	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
>=18000	33.7	49.3	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>=16000	34.0	49.6	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
>=14000	34.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>=12000	34.4	50.8	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
>=10000	34.5	51.0	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2
>=9000	34.5	51.0	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2
>=8000	34.6	51.5	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
>=7000	34.6	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>=6000	34.6	51.6	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
>=5000	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>=4500	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>=4000	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>=3500	34.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>=3000	34.8	51.8	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0
>=2500	35.1	52.1	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
>=2000	35.4	52.4	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
>=1800	35.7	53.0	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
>=1500	36.5	54.9	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
>=1200	38.7	58.4	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
>=1000	41.3	64.2	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=900	42.3	66.9	67.3	67.4	67.4	67.4	67.4	67.4	67.4	67.4
>=800	44.0	71.3	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=700	45.7	75.5	76.1	76.3	76.3	76.3	76.3	76.3	76.3	76.3
>=600	47.3	82.6	83.7	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=500	48.5	82.4	90.8	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>=400	49.1	94.1	96.8	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=300	49.3	96.0	98.8	99.6	99.7	99.7	99.7	99.7	99.7	99.7
>=200	49.3	96.0	98.9	99.8	99.9	99.9	99.9	99.9	99.9	99.9
>=100	49.3	96.0	98.9	99.8	99.9	99.9	100.0	100.0	100.0	100.0
>=0	49.3	96.0	98.9	99.8	99.9	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 990

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=1/4				>=0			
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMITED	27.1	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=20000	27.4	39.2	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
>=18000	27.4	39.3	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
>=16000	27.6	39.5	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
>=14000	27.9	40.1	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
>=12000	28.2	40.4	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
>=10000	28.3	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
>=9000	28.3	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
>=8000	28.3	40.9	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
>=7000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>=6000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>=5000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>=4500	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>=4000	28.4	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
>=3500	28.5	41.1	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>=3000	28.5	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>=2500	28.7	41.6	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
>=2000	29.3	42.6	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
>=1800	29.4	42.8	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
>=1500	30.8	44.8	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
>=1200	33.9	49.8	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>=1000	37.7	57.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
>=900	38.9	60.7	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
>=800	40.9	65.5	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
>=700	42.9	71.3	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
>=600	44.8	79.7	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=500	46.3	87.2	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
>=400	47.4	92.5	96.1	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
>=300	47.4	94.1	98.3	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=200	47.4	94.2	98.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=100	47.4	94.2	98.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=0	47.4	94.2	98.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)														
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMITED	19.8	33.2	33.7	33.7	33.7	33.7	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
>=20000	20.2	33.7	34.2	34.2	34.2	34.2	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
>=18000	20.2	33.8	34.3	34.3	34.3	34.3	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4
>=16000	20.4	34.1	34.6	34.6	34.6	34.6	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7
>=14000	20.6	34.8	35.3	35.3	35.3	35.3	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
>=12000	20.7	35.4	35.9	35.9	35.9	35.9	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
>=10000	21.0	35.7	36.2	36.2	36.2	36.2	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
>=9000	21.1	35.9	36.4	36.4	36.4	36.4	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5
>=8000	21.1	36.0	36.5	36.5	36.5	36.5	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
>=7000	21.1	36.1	36.6	36.6	36.6	36.6	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
>=6000	21.2	36.3	36.8	36.8	36.8	36.8	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
>=5000	21.3	36.4	36.9	36.9	36.9	36.9	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
>=4500	21.3	36.5	37.0	37.0	37.0	37.0	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
>=4000	21.4	36.6	37.1	37.1	37.1	37.1	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
>=3500	21.5	36.7	37.2	37.2	37.2	37.2	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
>=3000	21.6	36.8	37.3	37.3	37.3	37.3	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4
>=2500	21.8	37.2	37.8	37.8	37.8	37.8	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
>=2000	22.3	38.2	38.7	38.7	38.7	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=1800	22.5	38.7	39.2	39.2	39.2	39.2	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
>=1500	23.9	41.2	41.8	41.8	41.8	41.8	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
>=1200	26.5	46.9	47.5	47.5	47.5	47.5	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
>=1000	29.3	54.6	55.8	55.8	55.9	55.9	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
>=900	30.6	59.7	61.2	61.4	61.5	61.5	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=800	31.8	65.0	67.3	67.5	67.6	67.6	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
>=700	32.9	70.6	73.8	74.3	74.5	74.5	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
>=600	33.6	77.2	82.4	83.7	84.0	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
>=500	33.6	81.9	88.5	90.2	91.2	91.5	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
>=400	33.7	84.2	92.6	95.7	96.5	96.8	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=300	33.7	84.7	93.6	97.3	98.5	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=200	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	33.7	84.7	93.8	97.7	98.9	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=1/4				
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=2	>=1	1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	30.2	55.9	57.5	58.2	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
>=20000	30.6	56.6	58.2	58.9	58.9	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
>=18000	30.7	56.8	58.3	59.0	59.0	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
>=16000	30.7	56.9	58.4	59.1	59.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
>=14000	31.0	57.8	59.4	60.1	60.1	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
>=12000	31.4	58.8	60.4	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
>=10000	31.4	58.9	60.6	61.3	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
>= 9000	31.4	59.0	60.7	61.4	61.4	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>= 8000	31.5	59.4	61.1	61.8	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 7000	31.5	59.4	61.1	61.8	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 6000	31.5	59.5	61.2	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
>= 5000	31.6	59.7	61.4	62.1	62.1	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
>= 4500	31.6	59.9	61.7	62.4	62.4	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
>= 4000	31.7	60.1	61.9	62.6	62.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
>= 3500	31.7	60.1	61.9	62.6	62.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
>= 3000	32.2	60.6	62.4	63.1	63.1	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
>= 2500	32.3	60.7	62.5	63.2	63.2	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
>= 2000	33.3	62.3	64.2	64.9	64.9	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>= 1800	33.9	63.0	64.9	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 1500	36.0	67.4	69.3	70.1	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>= 1200	38.5	73.1	75.3	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 1000	40.6	80.3	83.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
>= 900	41.7	83.6	86.4	87.3	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
>= 800	42.1	87.7	91.1	92.1	92.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
>= 700	42.7	92.0	95.7	96.8	96.8	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 600	42.8	93.8	97.8	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>= 500	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 300	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 100	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	42.8	94.1	98.2	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF QPS : 985

2 - CEILING VS VISIBILITY

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL HOUR : 1300 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4	>=0
UNLIMITED	87.4	87.0	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=20000	58.6	88.6	89.0	89.1	89.2	89.2	89.2	89.2	89.2	89.2
>=18000	58.7	88.7	89.1	89.2	89.3	89.3	89.3	89.3	89.3	89.3
>=16000	58.7	88.8	89.2	89.3	89.4	89.4	89.4	89.4	89.4	89.4
>=14000	58.9	89.2	89.6	89.7	89.8	89.8	89.8	89.8	89.8	89.8
>=12000	59.4	90.0	90.4	90.5	90.6	90.6	90.6	90.6	90.6	90.6
>=10000	59.9	90.7	91.0	91.2	91.3	91.3	91.3	91.3	91.3	91.3
>=9000	59.9	90.8	91.2	91.3	91.4	91.4	91.4	91.4	91.4	91.4
>=8000	59.9	90.9	91.2	91.3	91.5	91.5	91.5	91.5	91.5	91.5
>=7000	59.9	91.0	91.4	91.5	91.5	91.5	91.5	91.5	91.5	91.5
>=6000	60.0	91.2	91.6	91.8	91.9	91.9	91.9	91.9	91.9	91.9
>=5000	60.0	91.2	91.6	91.8	91.9	91.9	91.9	91.9	91.9	91.9
>=4500	60.0	91.3	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0
>=4000	60.0	91.3	91.6	91.9	92.0	92.0	92.0	92.0	92.0	92.0
>=3500	60.1	91.4	91.9	92.0	92.1	92.1	92.1	92.1	92.1	92.1
>=3000	60.2	91.6	92.1	92.2	92.3	92.3	92.3	92.3	92.3	92.3
>=2500	60.6	92.1	92.5	92.6	92.7	92.7	92.7	92.7	92.7	92.7
>=2000	61.1	92.9	93.3	93.4	93.5	93.5	93.5	93.5	93.5	93.5
>=1800	61.2	93.0	93.4	93.5	93.6	93.6	93.6	93.6	93.6	93.6
>=1500	62.2	94.2	94.6	94.7	94.8	94.8	94.8	94.8	94.8	94.8
>=1200	63.6	96.8	97.4	97.5	97.6	97.6	97.6	97.6	97.6	97.6
>=1000	64.3	99.1	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8
>=900	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=800	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=700	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=600	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=500	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=400	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=300	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=200	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=100	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
>=0	64.3	99.3	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 982

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JULY  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2
UNLIMIT	61.9	90.2	90.7	90.7	90.7	90.7	90.7
>=20000	62.6	91.9	92.4	92.4	92.4	92.4	92.4
>=18000	62.6	92.2	92.7	92.7	92.7	92.7	92.7
>=16000	62.6	92.3	92.8	92.8	92.8	92.8	92.8
>=14000	63.2	93.0	93.5	93.5	93.5	93.5	93.5
>=12000	63.8	93.9	94.4	94.4	94.4	94.4	94.4
>=10000	64.0	94.1	94.6	94.7	94.7	94.7	94.7
>= 9000	64.0	94.1	94.6	94.7	94.7	94.7	94.7
>= 8000	64.1	94.6	95.1	95.2	95.2	95.2	95.2
>= 7000	64.1	94.6	95.1	95.2	95.2	95.2	95.2
>= 6000	64.1	94.8	95.3	95.4	95.4	95.4	95.4
>= 5000	64.1	94.8	95.3	95.4	95.4	95.4	95.4
>= 4500	64.1	95.0	95.5	95.6	95.6	95.6	95.6
>= 4000	64.1	95.0	95.5	95.6	95.6	95.6	95.6
>= 3500	64.1	95.4	95.5	95.6	95.6	95.6	95.6
>= 3000	64.3	95.3	95.8	95.9	95.9	95.9	95.9
>= 2500	64.4	95.5	96.0	96.1	96.1	96.1	96.1
>= 2000	64.6	95.7	96.2	96.3	96.3	96.3	96.3
>= 1800	64.8	96.0	96.5	96.6	96.6	96.6	96.6
>= 1500	64.9	96.8	97.4	97.5	97.5	97.5	97.5
>= 1200	65.0	97.6	98.1	98.2	98.2	98.2	98.2
>= 1000	65.3	98.9	99.4	99.5	99.5	99.5	99.5
>= 900	65.3	98.9	99.4	99.5	99.5	99.5	99.5
>= 800	65.4	99.2	99.7	99.8	99.8	99.8	99.8
>= 700	65.4	99.3	99.8	99.9	99.9	99.9	99.9
>= 600	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 500	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 400	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 300	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 200	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 100	65.4	99.3	99.8	100.0	100.0	100.0	100.0
>= 0	65.4	99.3	99.8	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 983

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT.	44.6	76.5	77.9	78.3	78.5	78.5	78.6	78.6	78.6	78.6
>=20000	44.9	77.7	79.1	79.6	79.9	80.0	80.0	80.0	80.0	80.0
>=18000	45.0	78.1	79.6	80.0	80.3	80.4	80.4	80.4	80.4	80.4
>=16000	45.1	78.2	79.7	80.1	80.4	80.5	80.5	80.5	80.5	80.5
>=14000	45.7	79.3	80.8	81.2	81.5	81.5	81.6	81.6	81.6	81.6
>=12000	45.9	80.0	81.4	81.8	82.1	82.1	82.2	82.2	82.2	82.2
>=10000	46.2	80.6	82.0	82.4	82.7	82.7	82.8	82.8	82.8	82.8
>=9000	46.2	80.6	82.0	82.4	82.7	82.7	82.8	82.8	82.8	82.8
>=8000	46.2	80.8	82.2	82.6	82.9	82.9	83.0	83.0	83.0	83.0
>=7000	46.3	80.9	82.3	82.7	83.0	83.0	83.1	83.1	83.1	83.1
>=6000	46.3	80.9	82.3	82.7	83.0	83.0	83.1	83.1	83.1	83.1
>=5000	46.3	80.9	82.3	82.7	83.0	83.0	83.1	83.1	83.1	83.1
>=4500	46.3	81.0	82.4	82.8	83.1	83.1	83.2	83.2	83.2	83.2
>=4000	46.3	81.0	82.4	82.8	83.1	83.1	83.2	83.2	83.2	83.2
>=3500	46.3	81.0	82.4	82.8	83.1	83.1	83.2	83.2	83.2	83.2
>=3000	46.4	81.1	82.5	82.9	83.2	83.2	83.3	83.3	83.3	83.3
>=2500	46.5	81.2	82.6	83.0	83.3	83.3	83.4	83.4	83.4	83.4
>=2000	46.5	81.5	82.9	83.3	83.6	83.6	83.7	83.7	83.7	83.7
>=1800	46.6	81.8	83.2	83.6	83.9	83.9	84.0	84.0	84.0	84.0
>=1500	47.1	82.5	84.0	84.4	84.7	84.7	84.8	84.8	84.8	84.8
>=1200	47.8	84.8	86.4	86.8	87.1	87.1	87.2	87.2	87.2	87.2
>=1000	48.3	86.8	88.3	88.8	89.2	89.2	89.3	89.3	89.3	89.3
>=900	48.9	88.5	90.0	90.5	90.9	90.9	91.0	91.0	91.0	91.0
>=800	49.4	91.4	92.9	93.6	94.0	94.0	94.1	94.1	94.1	94.1
>=700	49.6	93.1	94.7	95.5	96.0	96.0	96.1	96.1	96.1	96.1
>=600	50.1	94.5	96.6	97.6	98.1	98.1	98.2	98.2	98.2	98.2
>=500	50.2	95.3	97.7	98.7	99.3	99.3	99.4	99.4	99.4	99.4
>=400	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0
>=300	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0
>=200	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0
>=100	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0
>=0	50.2	95.7	98.3	99.3	99.9	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 983

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1-1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4		
UNLIMIT	40.8	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>=20000	40.9	62.2	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
>=18000	40.9	62.3	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
>=16000	41.1	62.6	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
>=14000	41.6	63.6	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=12000	42.4	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=10000	42.4	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=9000	42.4	64.7	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=8000	42.5	65.0	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=7000	42.5	65.0	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=6000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=5000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=4500	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=4000	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=3500	42.5	65.1	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=3000	42.5	65.3	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=2500	42.5	65.3	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=2000	42.9	65.7	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
>=1800	42.9	65.8	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
>=1500	43.3	66.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=1200	44.3	69.4	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
>=1000	45.3	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=900	46.3	75.5	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
>=800	47.6	78.4	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=700	49.2	83.1	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
>=600	50.6	90.0	90.6	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>=500	51.1	94.0	95.2	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=400	51.3	96.6	98.4	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>=300	51.5	97.3	99.2	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	51.5	97.3	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=5/8							>=1/2		>=5/16		>=1/4	
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=2	>=1	>=1/2	>=1	>=1/4	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
UNLIMIT	39.5	61.5	62.1	62.3	62.3	62.3	62.3	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	
>=20000	39.8	62.3	62.9	63.1	63.1	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	
>=18000	39.9	62.5	63.1	63.3	63.3	63.3	63.3	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	
>=16000	40.0	62.7	63.3	63.4	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	
>=14000	40.4	63.4	64.1	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	
>=12000	40.8	64.2	64.8	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	
>=10000	40.9	64.5	65.1	65.3	65.3	65.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	
>= 9000	40.9	64.5	65.2	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	
>= 8000	41.0	64.8	65.5	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	
>= 7000	41.0	64.9	65.6	65.7	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	
>= 6000	41.0	65.0	65.7	65.8	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	
>= 5000	41.1	65.1	65.7	65.9	65.9	65.9	65.9	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	
>= 4500	41.1	65.2	65.8	66.0	66.0	66.0	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 4000	41.1	65.2	65.8	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 3500	41.1	65.2	65.9	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	
>= 3000	41.3	65.4	66.1	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	
>= 2500	41.4	65.7	66.3	66.5	66.5	66.5	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	
>= 2000	41.9	66.4	67.0	67.2	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	
>= 1800	42.1	66.7	67.4	67.5	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	
>= 1500	43.1	68.6	69.2	69.4	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	
>= 1200	44.8	72.1	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	
>= 1000	46.5	76.7	77.6	77.8	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	
>= 900	47.3	79.1	80.1	80.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	
>= 800	48.2	82.0	83.3	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	
>= 700	49.1	85.5	86.9	87.2	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	
>= 600	49.8	89.5	91.5	92.0	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	
>= 500	50.2	92.6	94.9	95.7	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	
>= 400	50.5	94.5	97.5	98.5	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	
>= 300	50.6	95.1	98.2	99.3	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	
>= 200	50.6	95.1	98.3	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 170	50.6	95.1	98.3	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 100	50.6	95.1	98.3	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	
>= 0	50.6	95.1	98.3	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	

TOTAL NO. OF OBS : 7887

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	P1.	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED
		1	3	4	6	7-10	11-16			
N	.5	.1	.0	.0	.0	.0	.0	.0	.0	5.7
NNE	.2	.1	.0	.0	.0	.0	.0	.0	.3	2.7
NE	.1	.1	.0	.0	.0	.0	.0	.0	.2	3.0
ENE	.3	.0	.0	.0	.0	.0	.0	.0	.3	2.7
E	.3	.3	.1	.0	.0	.0	.0	.0	.8	5.0
ESE	.3	.2	.0	.0	.0	.0	.0	.0	.5	3.4
SE	.1	.1	.0	.0	.0	.0	.0	.0	.3	5.0
SSE	.2	.2	.0	.0	.0	.0	.0	.0	.4	6.5
S	.6	.6	.0	.0	.0	.0	.0	.0	.9	5.4
SSW	.2	1.3	1.9	.5	.0	.0	.0	.0	4.0	7.3
SW	1.5	4.1	6.3	2.1	.1	.0	.0	.0	14.1	7.4
WSW	.8	5.7	9.7	5.1	.3	.0	.0	.0	21.7	8.5
W	2.4	9.4	15.1	7.1	.1	.0	.0	.0	34.4	8.1
NNW	2.6	3.9	2.2	.6	.0	.0	.0	.0	9.4	5.6
NN	1.2	1.6	.4	.0	.0	.0	.0	.0	3.2	4.4
NNE	.1	.8	.7	.0	.0	.0	.0	.0	.9	4.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	10.9	29.0	36.8	15.5	.7	.0	.0	.0	100.0	6.9
ALL										

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

02339 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

1 - SURFACE WINDS

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED
		1	2	3	4	5	6			
N	.7	.6	.0	.0	.0	.0	.0	.0	.0	3.6
NNE	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.0
NE	.2	.2	.0	.0	.0	.0	.0	.0	.0	3.3
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.45	.1	.4	.0	.0	.0	.0	.0	.0	3.6
ESE	.5	.4	.1	.0	.0	.0	.0	.0	.0	3.9
SE	.3	.2	.0	.0	.0	.0	.0	.0	.0	3.2
SSE	.1	.3	.1	.0	.0	.0	.0	.0	.0	5.0
S	.5	.7	.5	.1	.0	.0	.0	.0	.0	5.5
SSW	.8	1.8	1.1	.2	.0	.0	.0	.0	.0	3.9
SW	.8	4.1	4.7	2.1	.0	.0	.0	.0	.0	7.7
WSW	1.5	6.5	10.3	3.4	.0	.0	.0	.0	.0	21.7
W	2.9	8.3	15.3	5.2	.1	.0	.0	.0	.0	7.8
NNW	2.6	4.7	1.9	.2	.0	.0	.0	.0	.0	9.5
NW	1.4	1.5	.3	.0	.0	.0	.0	.0	.0	4.0
NNW	.8	.7	.1	.0	.0	.0	.0	.0	.0	3.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	13.8	30.1	34.6	11.3	.1	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0700C LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>=56	TOTAL	MEAN WIND SPEED
	1-6 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47			
N	1.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0
NNE	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4
NE	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7
ESE	.8	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3
SE	.5	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8
SSE	.3	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1
S	1.2	1.9	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	5.2
SSW	.8	2.0	1.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	5.4
SW	.9	3.4	6.1	1.7	.1	.0	.0	.0	.0	.0	.0	.0	7.8
WSW	1.4	5.5	7.3	1.7	.1	.0	.0	.0	.0	.0	.0	.0	16.0
W	3.8	9.4	12.3	3.3	.1	.0	.0	.0	.0	.0	.0	.0	28.9
NNW	2.5	2.5	1.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	5.0
NW	1.2	1.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.1
NNW	1.4	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	17.0	30.7	31.3	6.2	.3	.0	.0	.0	.0	.0	.0	.0	100.0

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 992

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1966  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)												TOTAL	MEAN	
	16 PI.	1 - 31	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56			
N	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.6	
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	4.0	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	
ESE	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.5
SE	.5	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	4.3
SSE	.6	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	4.1
S	1.8	3.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	4.6
SSW	2.0	2.9	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	5.2
SW	2.8	4.6	3.6	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.6	6.3
WSW	3.1	9.4	6.4	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.9	6.4
W	3.2	10.2	13.0	4.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	30.9	7.3
WNW	.9	2.7	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	5.9
NNW	.6	3.6	1.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	5.7
NNW	.6	1.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	5.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	0.0
ALL	16.5	41.7	29.1	8.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0	6.0

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 492

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21			
N	0	.3	.3	.0	.0	.0	0	0	6.5
NNE	0	.1	.0	.0	.0	.0	0	0	6.0
NE	0	.0	.0	.0	.0	.0	0	0	0.0
ENE	0	.0	.0	.0	.0	.0	0	0	0.0
E	0	.0	.0	.0	.0	.0	0	0	0.0
ESE	0	.0	.0	.0	.0	.0	0	0	0.0
SE	.1	.0	.0	.0	.0	.0	0	0	2.0
SSE	0	.0	.0	.0	.0	.0	0	0	0.0
S	0	.3	.1	.0	.0	.0	0	0	5.6
SSW	.2	.3	.4	.0	.0	.0	0	0	6.1
SW	.3	.2	.2	.7	.2	.0	0	0	5.6
WSW	.0	1.4	7.4	4.5	.4	.0	0	0	13.7
W	.3	4.4	22.8	19.8	1.7	.2	0	0	10.1
NNW	.1	2.8	9.3	5.8	.2	.0	0	0	49.2
NW	.2	3.6	4.1	.7	.0	.0	0	0	18.2
NNW	.1	.7	1.2	.1	.0	.0	0	0	8.7
VAR	.0	.0	.0	.0	.0	.0	0	0	2.1
CLM	.0	.0	.0	.0	.0	.0	0	0	0.0
ALL	1.3	15.3	48.3	32.4	2.4	.2	0	0	100.0
							0	0	9.7

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN	
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	>=56	% WIND	SPEED
N	0	.2	0	0	0	0	0	0	0	0	0	.2	5.0
NNE	.1	0	0	0	0	0	0	0	0	0	0	.1	3.0
NE	0	0	0	0	0	0	0	0	0	0	0	0	0.0
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0.0
E	0	0	0	0	0	0	0	0	0	0	0	0	0.0
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SE	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SSE	0	0	0	0	0	0	0	0	0	0	0	0	0.0
S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SSW	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SW	0	0.5	1.3	1.2	0	0	0	0	0	0	0	0.0	9.8
WSW	0	0.6	3.8	4.3	0.9	0.1	0	0	0	0	0	0.8	11.5
W	1	1.9	19.3	34.3	5.9	.7	0	0	0	0	0	62.2	12.1
NNW	0	1.7	7.4	8.2	1.1	.1	0	0	0	0	0	18.4	11.1
NN	1	1.3	2.6	4	0	0	0	0	0	0	0	4.4	7.8
NNW	0	0.7	0.2	0	0	0	0	0	0	0	0	1.1	7.5
W	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
CLM	0	0	0	0	0	0	0	0	0	0	0	0.2	0.0
ALL	3	7.0	34.8	48.9	8.0	.9	0	0	0	0	0	100.0	11.5

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG 1900 LST  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR. 16 PT.	SPEED (KNOTS)												TOTAL 1	MEAN 1
	1	4	-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56		
DIR. 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N	0	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.6	6.2
NNE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	6.0
NE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	7.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
EE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SSE	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	4.0
S	.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	5.0
SSW	.1	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.8	6.5
SW	.3	1.7	1.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	4.6	7.5
WSW	.0	1.5	5.3	5.9	.5	.0	.0	.0	.0	.0	.0	.0	13.3	10.5
W	.4	6.1	23.2	25.8	2.8	.3	.0	.0	.0	.0	.0	.0	58.7	10.8
WNW	.5	2.9	8.7	4.0	.0	.0	.0	.0	.0	.0	.0	.0	16.1	8.9
NNW	.2	1.6	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	6.8
NNW	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	5.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	0.0
ALL	1.9	15.9	41.4	36.7	3.3	.0	.0	.0	.0	.0	.0	.0	100.0	9.9

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						TOTAL	MEAN WIND SPEED
		1-3	4-6	7-10	11-16	17-21	22-27		
N	.4	.4	.0	.0	.0	.0	.0	.0	.8
NNE	.1	.0	.0	.0	.0	.0	.0	.0	.0
NE	.3	.0	.0	.0	.0	.0	.0	.0	2.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.1	.0	.0	.0	.0	.0	.0	.0
ESE	.2	.1	.2	.0	.0	.0	.0	.0	.1
SE	.2	.1	.1	.0	.0	.0	.0	.0	.5
SSE	.0	.2	.1	.0	.0	.0	.0	.0	.3
S	.9	.5	.4	.2	.0	.0	.0	.0	5.3
SSW	1.0	1.2	.9	.2	.0	.0	.0	.0	5.3
SW	1.1	4.5	4.4	2.0	.0	.0	.0	.0	5.6
WSW	1.3	6.4	9.1	3.7	1	.0	.0	.0	7.2
W	2.3	11.4	17.9	7.9	.7	.1	.0	.0	20.6
NNW	1.2	4.7	3.3	.9	.1	.0	.0	.0	10.3
NW	.4	1.9	.1	.1	.0	.0	.0	.0	2.5
NNW	.5	.3	.4	.0	.0	.0	.0	.0	1.2
VAR	AQ	.0	.0	.0	.0	.0	.0	.0	.0
CLW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	10.0	31.6	37.0	15.1	.9	.1	.0	.0	100.0
									7.1

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21			
N	.3	.4	.1	.0*	.0	.0	.0	.0	.3
NNE	.1	.1	.0	.0	.0	.0	.0	.0	.4
NE	.1	.0*	.0	.0	.0	.0	.0	.0	.2
ENE	.0*	.0	.0	.0	.0	.0	.0	.0	.7
E	.1	.0*	.0	.0	.0	.0	.0	.0	.2
ESE	.2	.2	.0*	.0	.0	.0	.0	.0	.5
SE	.2	.2	.1	.0*	.0	.0	.0	.0	.5
SSE	.1	.4	.1	.0	.0	.0	.0	.0	.6
S	.6	1.1	.4	.1	.0	.0	.0	.0	.8
SSW	.7	1.2	1.0	.3	.0	.0	.0	.0	2.2
SW	1.0	3.0	3.2	1.6	.40*	.42	.40	.40	3.2
WSW	1.0	4.6	7.4	3.9	.3	.0*	.0	.0	7.5
W	1.9	7.6	17.4	13.5	.1.5	.2	.0	.0	17.2
NNW	1.3	3.3	4.5	2.5	.2	.0*	.0	.0	9.5
NW	.7	2.1	1.4	.2	.0	.0	.0	.0	11.8
NNN	.5	.7	.4	.1	.0	.0	.0	.0	4.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	1.6
CLM	.0	.0	.0	.0	.0	.0	.0	.0	5.2
ALL	9.0	25.2	36.7	22.1	2.0	.2	.0	.0	4.9
									0.0
									100.0
									7.9

TOTAL NO. OF OBS : 7936

NOTES : \* = PERCENT &lt; .05

2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONJIN : AUG HOUR : 0100 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS<sup>1</sup>)

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0				
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1 1/4	>=1					
UNLIMIT	27.9	38.7	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
>=20000	28.3	39.4	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
>=18000	28.3	39.4	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
>=16000	28.4	39.5	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
>=14000	28.8	40.1	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
>=12000	29.8	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
>=10000	30.2	42.0	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
>= 9000	30.2	42.0	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
>= 8000	30.4	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
>= 7000	30.4	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
>= 6000	30.5	42.3	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
>= 5000	30.7	42.5	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
>= 4500	30.8	42.7	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
>= 4000	30.8	42.8	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
>= 3500	30.8	42.9	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
>= 3000	30.9	43.0	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
>= 2500	31.2	43.3	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
>= 2000	31.7	44.3	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
>= 1800	31.9	44.8	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
>= 1500	33.0	47.0	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1
>= 1200	34.2	50.7	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>= 1000	38.3	57.0	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
>= 900	40.5	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>= 800	42.9	67.0	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
>= 700	45.4	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>= 600	47.4	81.2	81.8	81.8	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
>= 500	48.4	87.6	88.2	88.2	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
>= 400	49.7	92.7	94.8	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>= 300	49.8	94.5	97.3	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 200	49.8	94.8	94.8	97.7	99.1	99.5	99.6	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9
>= 100	49.8	94.9	97.8	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.9	100.0	100.0	100.0	100.0
>= 0	49.8	94.9	97.8	99.2	99.6	99.6	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 991

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE								
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	18.5	31.1	31.6	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
>=20000	18.8	31.8	32.3	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
>=18000	19.0	32.2	32.7	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
>=16000	19.0	32.2	32.7	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
>=14000	19.9	33.4	33.9	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
>=12000	20.4	34.3	34.9	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
>=10000	20.7	34.8	35.3	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
>=9000	20.7	34.9	35.4	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
>=8000	21.2	35.4	35.9	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
>=7000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=6000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=5000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=4500	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=4000	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=3500	21.2	35.6	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
>=3000	21.5	36.1	36.6	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
>=2500	21.9	36.5	36.6	37.0	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
>=2000	22.3	37.1	37.7	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8
>=1800	22.7	37.9	38.5	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
>=1500	24.3	41.0	41.7	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8
>=1200	26.3	46.0	46.9	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
>=1000	28.6	53.9	55.2	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
>=900	30.6	60.2	61.7	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=800	31.2	65.6	67.6	67.9	67.9	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
>=700	31.8	70.3	73.4	74.5	74.5	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
>=600	32.5	76.7	80.4	82.3	82.6	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=500	32.7	81.5	86.8	89.6	90.0	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>=400	32.7	84.8	91.6	95.6	96.1	96.7	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=300	32.8	85.4	92.7	97.6	98.4	98.9	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=200	32.8	85.4	92.7	97.6	98.4	99.1	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=100	32.8	85.5	92.8	97.7	98.5	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=0	32.8	85.5	92.8	97.7	98.5	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 987

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=2	>=1 1/2	>=1	>=1/4	>=0	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	29.7	53.1	54.0	55.4	56.0	56.0	56.2	56.3	56.3	56.3	56.3	56.3	56.4	56.4	56.4	56.4	56.4
>=20000	30.6	54.4	55.6	56.7	57.3	57.3	57.5	57.6	57.6	57.6	57.6	57.6	57.7	57.7	57.7	57.7	57.7
>=18000	30.6	54.4	55.6	56.7	57.3	57.3	57.5	57.6	57.6	57.6	57.6	57.6	57.7	57.7	57.7	57.7	57.7
>=16000	30.7	54.6	55.8	56.9	57.5	57.5	57.7	57.8	57.8	57.8	57.8	57.8	57.9	57.9	57.9	57.9	57.9
>=14000	31.0	55.4	56.5	57.6	58.2	58.2	58.4	58.5	58.5	58.5	58.5	58.5	58.6	58.6	58.6	58.6	58.6
>=12000	31.4	56.5	57.7	58.9	59.5	59.5	59.7	59.8	59.8	59.8	59.8	59.8	59.9	59.9	59.9	59.9	59.9
>=10000	31.9	57.1	58.3	59.5	60.1	60.1	60.3	60.4	60.4	60.4	60.4	60.4	60.6	60.6	60.6	60.6	60.6
>=9000	31.9	57.2	58.4	59.6	60.2	60.2	60.4	60.6	60.6	60.6	60.6	60.6	60.7	60.7	60.7	60.7	60.7
>=8000	32.3	57.6	58.8	60.0	60.7	60.7	60.9	61.0	61.0	61.0	61.0	61.0	61.1	61.1	61.1	61.1	61.1
>=7000	32.3	57.6	58.8	60.0	60.7	60.7	60.9	61.0	61.0	61.0	61.0	61.0	61.1	61.1	61.1	61.1	61.1
>=6000	32.4	57.8	59.0	60.2	60.9	60.9	61.1	61.1	61.2	61.2	61.2	61.2	61.3	61.3	61.3	61.3	61.3
>=5000	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.5	61.5	61.5	61.5	61.5
>=4500	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.5	61.5	61.5	61.5	61.5
>=4000	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.5	61.5	61.5	61.5	61.5
>=3500	32.5	58.0	59.2	60.4	61.1	61.1	61.3	61.4	61.4	61.4	61.4	61.4	61.5	61.5	61.5	61.5	61.5
>=3000	32.7	58.3	59.5	60.8	61.4	61.4	61.6	61.7	61.7	61.7	61.7	61.7	61.8	61.8	61.8	61.8	61.8
>=2500	33.1	58.7	59.9	61.2	61.8	61.8	62.0	62.1	62.1	62.1	62.1	62.1	62.2	62.2	62.2	62.2	62.2
>=2000	34.0	60.0	61.3	62.5	63.1	63.1	63.3	63.4	63.4	63.4	63.4	63.4	63.5	63.5	63.5	63.5	63.5
>=1800	34.7	60.8	62.1	63.3	63.9	63.9	64.1	64.2	64.2	64.2	64.2	64.2	64.3	64.3	64.3	64.3	64.3
>=1500	36.4	64.3	65.6	66.9	67.5	67.5	67.7	67.8	67.8	67.8	67.8	67.8	67.9	67.9	67.9	67.9	67.9
>=1200	38.7	70.2	71.6	72.8	73.4	73.4	73.6	73.7	73.7	73.7	73.7	73.7	73.8	73.8	73.8	73.8	73.8
>=1000	40.6	78.4	80.3	81.7	82.3	82.4	82.6	82.7	82.7	82.7	82.7	82.7	82.8	82.8	82.8	82.8	82.8
>=900	41.6	81.9	83.8	85.2	85.9	86.0	86.2	86.3	86.3	86.3	86.3	86.3	86.4	86.4	86.4	86.4	86.4
>=800	42.2	85.5	88.1	89.8	90.5	90.6	90.8	90.9	90.9	90.9	90.9	90.9	91.0	91.0	91.0	91.0	91.0
>=700	42.9	89.4	92.2	94.1	95.0	95.1	95.3	95.4	95.4	95.4	95.4	95.4	95.5	95.5	95.5	95.5	95.5
>=600	43.0	91.8	95.1	97.0	98.1	98.2	98.4	98.5	98.5	98.5	98.5	98.5	98.6	98.6	98.6	98.6	98.6
>=500	43.0	92.7	96.2	98.2	99.2	99.3	99.5	99.6	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7
>=400	43.0	92.9	96.4	98.4	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>=300	43.0	92.9	96.4	98.4	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>=200	43.0	92.9	96.4	98.4	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>=100	43.0	92.9	96.4	98.4	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>=0	43.0	92.9	96.4	98.4	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 981

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986.  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						
	>=0	>=1/4	>=1/2	>=2	>=3	>=4	>=5
UNLIMIT	59.5	85.0	85.8	85.9	85.9	85.9	85.9
>=20000	60.1	86.3	87.1	87.2	87.2	87.2	87.2
>=18000	60.2	86.5	87.3	87.4	87.4	87.4	87.4
>=16000	60.5	86.7	87.5	87.6	87.6	87.6	87.6
>=14000	60.9	87.8	88.7	88.8	88.8	88.8	88.8
>=12000	61.3	89.0	89.8	90.0	90.0	90.0	90.0
>=10000	61.6	89.5	90.3	90.5	90.5	90.5	90.5
>= 9000	61.6	89.5	90.3	90.5	90.5	90.5	90.5
>= 8000	61.8	89.8	90.6	90.8	90.8	90.8	90.8
>= 7000	61.8	89.9	90.7	90.9	90.9	90.9	90.9
>= 6000	61.9	90.0	90.8	91.0	91.0	91.0	91.0
>= 5000	61.9	90.1	90.9	91.1	91.1	91.1	91.1
>= 4500	62.0	90.2	91.0	91.2	91.2	91.2	91.2
>= 4000	62.1	90.3	91.1	91.3	91.3	91.3	91.3
>= 3500	62.2	90.4	91.2	91.5	91.5	91.5	91.5
>= 3000	62.5	90.7	91.6	91.8	91.8	91.8	91.8
>= 2500	62.7	91.0	91.9	92.1	92.1	92.1	92.1
>= 2000	63.4	92.0	92.8	93.0	93.0	93.0	93.0
>= 1800	63.7	92.4	93.2	93.4	93.4	93.4	93.4
>= 1500	64.5	93.2	94.0	94.2	94.3	94.3	94.3
>= 1200	64.8	94.4	95.4	95.6	95.7	95.7	95.7
>= 1000	65.4	97.7	98.7	98.9	99.0	99.0	99.0
>= 900	65.5	98.2	99.3	99.5	99.6	99.6	99.6
>= 800	65.5	98.6	99.6	99.8	99.9	99.9	99.9
>= 700	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 600	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 500	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 400	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 300	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 270	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 170	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 10	65.5	98.7	99.7	99.9	99.9	99.9	99.9
>= 0	65.5	98.7	99.7	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 971

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=0	>=1/4	>=1/2	>=2	>=3	>=4	>=5	>=6	>=7	>=8
UNLIMITED	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=20000	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
>=18000	90.4	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
>=16000	90.5	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
>=14000	91.4	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>=12000	92.8	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=10000	93.0	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
>= 9000	93.0	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
>= 8000	92.1	93.7	94.4	94.5	94.5	94.5	94.5	94.5	94.5	94.5
>= 7000	92.1	93.8	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>= 6000	92.1	93.8	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6
>= 5000	93.9	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>= 4500	92.1	93.9	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7
>= 4000	92.1	93.9	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7
>= 3500	92.1	93.9	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
>= 3000	94.0	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 2500	94.1	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>= 2000	94.8	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>= 1600	94.9	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>= 1500	95.4	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>= 1200	96.0	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
>= 1000	97.5	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 900	97.9	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 800	98.5	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>= 700	98.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 600	98.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 500	98.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 400	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	98.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OGS : 974

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4							
UNLIMIT	42.0	70.6	72.0	72.4	72.5	72.5	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
>=20000	42.5	72.0	73.4	73.9	74.0	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
>=18000	42.6	72.2	73.6	74.1	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=16000	42.8	72.4	73.8	74.3	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=14000	44.0	73.9	75.5	76.0	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>=12000	44.3	75.1	76.6	77.1	77.2	77.2	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>=10000	44.4	75.5	77.0	77.5	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=9000	44.5	75.6	77.1	77.6	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
>=8000	44.8	76.3	77.8	78.3	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=7000	44.9	76.4	77.9	78.4	78.5	78.5	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
>=6000	45.0	76.5	78.0	78.5	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>=5000	45.1	76.5	78.0	78.5	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>=4500	45.0	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=4000	45.1	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=3500	45.0	76.6	78.1	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=3000	45.1	76.8	78.3	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>=2500	45.1	76.8	78.3	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>=2000	45.3	77.3	78.8	79.3	79.4	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
>=1800	45.3	77.4	78.9	79.4	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>=1500	45.9	78.2	79.8	80.3	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=1200	46.1	79.4	81.1	81.7	81.8	81.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>=1000	46.7	81.9	83.6	84.3	84.4	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>=900	47.0	83.5	85.4	86.2	86.3	86.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
>=800	47.3	86.1	88.2	89.2	89.3	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
>=700	48.1	90.0	92.5	93.8	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
>=600	48.3	93.5	96.3	97.9	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=500	48.3	94.4	97.4	99.0	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=400	48.3	95.0	98.2	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=300	48.3	95.0	98.2	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=200	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	48.4	95.1	98.3	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 978

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						VISIBILITY (STATUTE MILES)					
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2
UNLIMIT	42.6	60.5	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
>=20000	43.0	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=18000	43.0	61.2	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=16000	43.1	61.3	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=14000	43.6	61.8	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=12000	44.7	63.2	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
>=10000	45.1	63.7	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=9000	45.1	63.8	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=8000	45.2	64.1	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>=7000	45.3	64.2	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
>=6000	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=5000	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=4500	45.3	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>=4000	45.4	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=3500	45.4	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
>=3000	45.6	64.6	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=2500	45.7	64.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
>=2000	45.7	64.9	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=1800	45.7	64.9	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>=1500	46.3	66.0	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>=1200	47.1	68.0	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
>=1000	49.1	71.6	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>=900	49.9	74.2	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=800	50.9	77.8	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
>=700	51.4	82.4	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
>=600	52.2	89.5	90.4	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=500	52.9	93.8	94.9	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>=400	53.2	96.9	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>=300	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	53.4	98.0	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 988

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : AUG  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE						
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/2	>=1/4	>=1/8	>=1/16	>=1/4	>0
UNLIMITED	39.3	59.5	60.1	60.3	60.4	60.4	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
>=20000	39.8	60.6	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
>=18000	39.9	60.8	61.4	61.7	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
>=16000	40.1	51.0	61.6	61.8	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
>=14000	40.7	61.9	62.5	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
>=12000	41.3	63.1	63.7	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1
>=10000	41.6	63.5	64.2	64.4	64.5	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
>= 9000	41.7	63.6	64.2	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.7
>= 8000	42.0	64.0	64.6	64.9	65.0	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
>= 7000	42.0	64.1	64.7	65.0	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.2
>= 6000	42.0	64.2	64.8	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>= 5000	42.1	64.2	64.9	65.2	65.2	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>= 4500	42.1	64.3	64.9	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.4
>= 4000	42.1	64.3	65.0	65.2	65.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 3500	42.1	64.4	65.0	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 3000	42.3	64.6	65.3	65.5	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 2500	42.5	64.9	65.5	65.8	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
>= 2000	42.9	65.6	66.3	66.5	66.6	66.6	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>= 1800	43.2	65.9	66.6	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
>= 1500	44.0	67.7	68.4	68.6	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
>= 1200	45.2	70.5	71.3	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>= 1000	47.1	75.4	76.3	76.6	76.7	76.7	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
>= 900	48.0	78.1	79.1	79.5	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
>= 800	48.9	81.3	82.5	82.9	83.0	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 700	49.7	84.8	86.2	86.4	87.0	87.0	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
>= 600	50.4	89.3	91.0	91.9	92.1	92.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
>= 500	50.9	92.1	94.3	95.3	95.5	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 400	51.1	94.2	96.8	98.1	98.3	98.4	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6
>= 300	51.1	94.9	97.7	99.2	99.5	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 200	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 0	51.2	95.0	97.8	99.3	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NO. OF OHS : 7858

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP.  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	> 48 - 55		
N	1.4	.7	.1	.2	.0	.0	.0	.0	.0	.0	.0	2.5	5.1
NNE	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.2
NE	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	3.9
ENE	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.0
E	1.6	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	2.5	3.4
ESE	.4	1.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	2.0	5.2
SE	.5	.3	.3	.1	.0	.1	.0	.0	.0	.0	.0	1.4	6.8
SSE	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.4
S	.5	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	1.8	5.3
SSW	.4	1.2	.9	.3	.0	.0	.0	.0	.0	.0	.0	2.9	6.5
SW	1.5	2.2	2.4	1.0	.0	.0	.0	.0	.0	.0	.0	7.1	6.8
VSW	1.5	4.8	6.7	2.0	.1	.0	.0	.0	.0	.0	.0	15.0	7.5
V	2.1	10.0	12.8	2.9	.1	.0	.0	.0	.0	.0	.0	27.9	7.1
NNW	3.1	5.6	1.4	.4	.0	.0	.0	.0	.0	.0	.0	10.5	4.9
NW	1.7	2.3	.7	.7	.0	.0	.0	.0	.0	.0	.0	5.0	5.2
NNN	.9	.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.5	5.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.4	4.0
ALL	16.8	31.9	27.0	7.4	.5	.0	.1	.0	.0	.0	.0	100.0	5.3

TOTAL NO. OF OBS : 560

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)					TOTAL	MEAN
		16	1 - 31	4 - 61	7-101	11-161		
N	3.9	2.0	.3	.4	.0	.0	.0	6.6
NNE	4.5	.2	.0	.1	.0	.0	.0	.8
NE	4	.1	.0	.0	.0	.0	.0	.5
ENE	1	.2	.0	.0	.0	.0	.0	.3
E	1.0	.6	.1	.0	.0	.0	.0	4.3
ESE	1.4	1.9	.0	.1	.0	.0	.0	1.8
SE	.7	1.2	.3	.1	.0	.0	.0	2.5
SSE	.3	.5	.2	.1	.0	.0	.0	1.1
S	.5	.8	.3	.0	.0	.0	.0	1.7
SSW	.2	1.1	1.0	.1	.0	.0	.0	2.6
SW	1.5	3.4	2.1	.7	.0	.0	.0	6.2
WSW	1.6	4.5	5.1	1.5	.1	.0	.0	12.7
W	2.7	10.0	9.9	2.5	.1	.0	.0	25.2
WNW	2.4	4.5	1.8	.4	.0	.0	.0	5.3
NNW	2.0	1.4	.6	.1	.0	.0	.0	4.1
NNW	2.1	1.0	.3	.0	.0	.0	.0	3.6
VAR	ALL	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	21.4	33.5	22.1	6.0	.3	.1	.0	100.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN	WIND SPEED	
	16 PT.	1	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56
N	2.6	2.0	1.4	-	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.1
NN E	.9	.5	.0	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5
NE	.2	.0	.0	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
ENE	.3	.1	.0	-	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5
E	1.5	1.0	.3	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2
ESE	1.7	2.5	1.0	-	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.8
SE	.8	1.6	.3	-	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.0
SSE	.1	.3	.6	-	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.1
S	1.2	1.4	.6	-	.0	.0	.1	.0	.0	.0	.0	.0	.0	7.5
SSW	.8	2.4	1.0	-	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.3
SW	1.4	2.6	2.1	-	.2	.0	.0	.0	.0	.0	.0	.0	.0	5.4
WSW	1.0	3.1	3.2	-	1.1	.0	.0	.0	.0	.0	.0	.0	.0	7.3
W	3.9	7.6	6.7	-	1.9	.0	.0	.0	.0	.0	.0	.0	.0	6.8
WNW	2.2	3.1	1.2	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.2
NW	1.5	2.4	.7	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.6
NNW	3.1	2.2	.2	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8
VAR	.0	.0	.0	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	0	0	.0	-	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	2.3	2.2	32.8	-	20.6	4.1	.0	.1	.0	.0	.0	.0	.0	100.0

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 960

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)												TOTAL	MEAN
	16 PT.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	>=56		
N	.6	.9	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	2.1	6.1
NNE	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	4.7
NE	.1	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	8.6
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
E	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.5
ESE	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.3
SE	.3	1.5	.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	2.4	6.8
SSE	1.2	2.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	4.6
S	2.9	6.4	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	10.4	4.5
SSW	3.0	2.9	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.3	4.7
SW	3.9	3.0	1.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	8.9	4.5
WSW	5.1	6.1	4.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	16.2	5.5
W	3.5	7.4	6.8	2.4	.0	.0	.0	.0	.0	.0	.0	.0	20.1	6.5
WNW	1.7	3.2	1.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.8	5.5
NN	1.4	4.3	2.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.8	5.5
NNW	1.6	3.4	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.5	5.1
VAR	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0
ALL	25.6	42.0	21.1	5.0	0.0	.1	.0	.0	.0	.0	.0	.0	100.0	5.1

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED			
	16 PT.	1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%
N	.1	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	5.6
NNE	.0	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	8.0
NE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.0
ENE	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	10.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	11.3
SSE	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.6
S	.0	.6	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1.1	7.4
SSW	.3	.9	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	6.7
SW	.2	1.6	1.4	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	7.9
WSW	1.0	3.3	4.3	2.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	11.7	8.1
W	1.5	5.7	19.8	14.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	42.3	9.8
WNW	.2	3.3	10.1	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.3	8.6
NW	.2	4.4	7.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	7.2
NNW	.1	2.4	2.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	7.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	0.0
ALL	3.7	23.7	46.6	23.2	1.8	.0	.0	.0	.0	.0	.0	.0	.0	100.0	8.6

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)						>56	TOTAL	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21			
N	*1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	9.3
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	9.5
SSE	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	8.5
S	0.2	0.1	0.3	0.1	0.0	0.0	0.0	0.0	6.4
SSW	0.0	0.2	0.7	0.4	0.0	0.0	0.0	0.0	9.5
SW	0.0	0.1	0.6	0.2	0.1	0.0	0.0	0.0	11.9
WSW	0.1	0.7	3.1	4.5	0.7	0.0	0.0	0.0	9.2
W	0.1	2.0	21.9	32.4	4.9	0.4	0.0	0.0	11.8
NNW	0.1	2.5	8.3	5.7	0.6	0.0	0.0	0.0	17.3
NW	0.2	2.2	2.6	0.5	0.1	0.0	0.0	0.0	5.6
NNW	0.1	0.9	0.4	0.0	0.0	0.0	0.0	0.0	5.9
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	1.0	8.9	38.3	44.4	6.7	0.5	0.0	0.0	11.0

TOTAL NO. OF OBS : 959

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						TOTAL	MEAN WIND SPEED
		4	6	8	10	11-16	17-21		
N	1.0	2.5	.5	.1	.3	.0	.0	.0	5.7
NN E	.5	.4	.1	.0	.0	.0	.0	.0	3.8
NE	.0	.5	.0	.0	.0	.0	.0	.0	4.6
ENE	.1	.1	.0	.0	.0	.0	.0	.0	3.0
E	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	0.0
SE	.0	.1	.0	.1	.0	.0	.0	.0	10.3
SSE	.0	.0	.1	.0	.0	.0	.0	.0	7.0
S	.1	.3	.2	.3	.0	.0	.0	.0	7.8
SSW	.4	.0	.2	.1	.0	.0	.0	.0	6.3
SW	.1	.1	.2	.1.5	.8	.0	.0	.0	8.1
WSW	.4	2.2	3.8	2.2	.0	.0	.0	.0	8.7
W	1.7	8.1	21.8	18.2	1.5	.1	.0	.0	51.4
WNW	.5	5.6	7.1	3.5	.2	.0	.0	.0	8.2
NNW	.7	2.6	1.6	.1	.0	.0	.0	.0	5.2
NNNW	.3	1.3	.7	.0	.0	.0	.0	.0	2.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	5.9	24.7	37.9	25.4	2.1	.1	.0	100.0	8.4

TOTAL NO. OF OBS : 959

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						>=56	TOTAL	MEAN		
		1	4	6	10	11-16	17-21	22-27	28-33	34-40	41-47	48-55
N	1.0	1.4	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0
NNE	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.8
NE	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.0
ENE	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5
E	.6	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	4.2
ESE	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3
SE	.2	.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	4.8
SSE	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.9
S	.6	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	4.4
SSW	.7	1.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	1.9
SW	1.2	2.4	2.5	1.3	.0	.0	.0	.0	.0	.0	.0	2.7
WSW	1.9	4.5	4.7	2.4	.0	.0	.0	.0	.0	.0	.0	6.4
W	3.5	11.4	15.1	7.0	.3	.0	.0	.0	.0	.0	.0	13.5
WNW	1.6	3.5	2.7	.6	.0	.0	.0	.0	.0	.0	.0	37.3
NNW	1.7	2.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	7.1
NNW	.5	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	7.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0
CLM	.0	0.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5
ALL	15.5	31.8	27.5	12.6	.6	.0	.0	.0	.0	.0	.0	100.0

TOTAL NO. OF OBS : 959

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	- 3	4	- 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN WIND SPEED
N	1.3	1.3	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	5.1
NNE	.3	.3	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	4.2
NE	.2	.2	.0*	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.6
ENE	.1	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4.0
E	.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.6
ESE	.5	.8	.2	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	4.7
SE	.3	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	6.4
SSE	.2	.5	.3	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	5.2
S	.8	1.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	5.1
SSW	.8	1.3	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	5.7
SW	1.2	2.2	1.9	.7	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.0	6.1	6.5
WSW	1.6	3.7	4.4	2.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.9	7.5
W	2.4	7.8	14.3	10.2	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	35.7	9.0
NNW	1.5	3.9	4.3	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.6	7.3
NW	1.2	2.7	2.1	.3	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3	6.0
NNW	1.1	1.7	.7	.1	.0*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	5.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	0.0
ALL	14.2	28.7	30.1	15.9	1.5	.1	.0*	.0	.0	.0	.0	.0	.0	.0	100.0	6.7

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 7677

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	43.6	60.9	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
>=20000	43.9	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
>=18000	44.1	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>=16000	44.2	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
>=14000	44.7	62.7	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
>=12000	45.0	63.6	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
>=10000	45.1	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>= 9000	45.1	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
>= 8000	45.2	64.7	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>= 7000	45.2	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
>= 6000	45.3	65.3	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4
>= 5000	45.4	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>= 4500	45.5	65.5	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
>= 4000	45.7	66.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
>= 3500	45.9	66.2	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>= 3000	46.2	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>= 2500	46.4	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
>= 2000	47.1	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>= 1800	47.4	68.8	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>= 1500	49.3	72.5	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
>= 1200	50.6	75.9	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>= 1000	52.4	79.6	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>= 900	53.0	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
>= 800	53.8	85.3	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
>= 700	54.8	89.4	89.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>= 600	55.3	92.1	92.7	92.9	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
>= 500	55.7	95.0	95.6	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
>= 400	55.9	96.6	97.6	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
>= 300	55.9	97.3	98.6	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>= 200	55.9	97.6	99.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>= 100	55.9	97.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>= 0	55.9	97.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NO. OF OVS : 955

2 - CEILING VS VISIBILITY

0023237 : ALAMEDA. CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP HOUR : 0400 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

TOTAL NO. OF OBS : 956

## ? - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0	
					>=3	>=2	>=2	>=1/2	>=1/2	>=1							
UNLIMIT	24.7	42.3	43.8	44.6	44.6	44.6	44.6	44.6	44.6	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
>=2000	25.0	43.4	44.8	45.7	45.7	45.7	45.7	45.7	45.7	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
>=1800	25.1	43.6	45.0	45.9	45.9	45.9	45.9	45.9	45.9	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1
>=1600	25.2	43.7	45.1	46.0	46.0	46.0	46.0	46.0	46.0	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
>=1400	25.4	44.2	45.7	46.5	46.5	46.5	46.5	46.5	46.5	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
>=1200	25.9	45.2	46.7	47.5	47.5	47.5	47.5	47.5	47.5	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
>=1000	26.6	46.2	47.6	48.5	48.5	48.5	48.5	48.5	48.5	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
>=900	26.8	46.4	47.9	48.7	48.7	48.7	48.7	48.7	48.7	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9
>=800	27.1	47.0	48.5	49.3	49.3	49.3	49.3	49.3	49.3	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
>=700	27.1	47.2	48.7	49.5	49.5	49.5	49.5	49.5	49.5	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7
>=600	27.1	47.4	48.9	49.7	49.7	49.7	49.7	49.7	49.7	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.9
>=500	27.1	47.5	49.1	49.9	49.9	49.9	49.9	49.9	49.9	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
>=4500	27.2	47.8	49.3	50.2	50.2	50.2	50.2	50.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
>=4000	27.2	48.0	49.5	50.4	50.4	50.4	50.4	50.4	50.4	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
>=3500	27.3	48.2	49.7	50.6	50.6	50.6	50.6	50.6	50.6	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
>=3000	27.9	49.2	50.9	51.7	51.7	51.7	51.7	51.7	51.7	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
>=2500	29.0	50.9	52.6	53.4	53.4	53.4	53.4	53.4	53.4	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
>=2000	30.2	52.9	54.5	55.5	55.5	55.5	55.5	55.5	55.5	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
>=1800	30.9	54.1	55.8	56.9	56.9	56.9	56.9	56.9	56.9	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
>=1500	32.3	58.1	59.8	61.0	61.1	61.1	61.1	61.1	61.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
>=1200	33.5	63.2	64.9	66.2	66.4	66.4	66.4	66.4	66.4	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
>=1000	35.9	69.0	71.2	72.6	72.6	72.6	72.6	72.6	72.6	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=900	36.2	71.7	74.5	76.1	76.3	76.3	76.3	76.3	76.3	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
>=800	36.7	75.1	78.3	80.0	80.3	80.3	80.3	80.3	80.3	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=700	37.1	79.0	82.8	84.5	84.8	84.8	84.8	84.8	84.8	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>=600	37.3	81.4	86.2	88.3	88.7	88.7	88.7	88.7	88.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
>=500	37.6	83.9	89.9	92.9	94.1	94.4	94.4	94.4	94.4	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
>=400	37.6	84.8	91.4	95.1	96.6	97.0	97.0	97.0	97.0	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>=300	37.6	84.8	91.7	95.6	97.6	98.3	98.3	98.3	98.3	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=200	37.6	84.8	91.7	95.6	97.6	98.1	98.1	98.1	98.1	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=100	37.6	84.8	91.7	95.6	97.6	98.1	98.1	98.1	98.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
>=0	37.6	84.8	91.7	95.6	97.6	98.1	98.1	98.1	98.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1

TOTAL NO. OF OBS : 957

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)										
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	28.3	52.7	56.5	59.1	60.9	61.2	61.8	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=20000	29.0	54.2	58.0	60.7	62.5	62.9	63.5	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8
>=18000	29.0	54.3	58.1	60.8	62.7	63.1	63.7	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0
>=16000	29.1	54.4	58.2	60.9	62.8	63.3	63.8	64.0	64.0	64.1	64.1	64.1	64.1	64.1	64.1
>=14000	29.4	55.0	58.8	61.6	63.5	63.9	64.4	64.6	64.6	64.7	64.7	64.7	64.7	64.7	64.7
>=12000	29.8	55.8	59.6	62.4	64.3	64.7	65.3	65.5	65.5	65.6	65.6	65.6	65.6	65.6	65.6
>=10000	30.1	56.4	60.2	63.0	64.9	65.4	65.9	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>= 9000	30.1	56.4	60.2	63.0	64.9	65.4	65.9	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
>= 8000	30.6	57.1	60.9	63.8	65.7	66.1	66.6	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
>= 7000	30.7	57.2	61.0	63.9	65.8	66.2	66.7	66.7	66.9	66.9	67.1	67.1	67.1	67.1	67.1
>= 6000	30.7	57.2	61.0	63.9	65.8	66.2	66.7	66.9	66.9	67.1	67.1	67.1	67.1	67.1	67.1
>= 5000	31.0	57.6	61.4	64.2	66.1	66.5	67.1	67.3	67.3	67.4	67.4	67.4	67.4	67.4	67.4
>= 4500	31.5	58.1	61.9	64.7	66.6	67.1	67.6	67.8	67.8	67.9	67.9	67.9	67.9	67.9	67.9
>= 4000	31.6	58.5	62.3	65.2	67.1	67.5	68.0	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3
>= 3500	32.0	59.0	62.8	65.7	67.7	68.1	68.6	68.8	68.8	69.0	69.0	69.0	69.0	69.0	69.0
>= 3000	32.4	60.0	63.6	66.6	68.6	69.1	69.8	69.8	69.8	69.9	69.9	69.9	69.9	69.9	69.9
>= 2500	33.3	61.6	65.4	68.2	70.2	70.6	71.2	71.4	71.4	71.5	71.5	71.5	71.5	71.5	71.5
>= 2000	35.1	64.7	68.7	71.6	73.6	74.0	74.6	74.8	74.8	74.9	74.9	74.9	74.9	74.9	74.9
>= 1800	35.7	65.7	69.7	72.5	74.6	75.0	75.5	75.7	75.7	75.8	75.8	75.8	75.8	75.8	75.8
>= 1500	37.0	69.2	73.3	76.1	78.1	78.6	79.1	79.3	79.3	79.4	79.4	79.4	79.4	79.4	79.4
>= 1200	38.1	73.0	77.1	80.0	82.2	82.6	83.1	83.3	83.3	83.4	83.4	83.4	83.4	83.4	83.4
>= 1000	39.2	77.1	81.7	84.8	87.0	87.5	88.1	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.4
>= 900	39.3	79.4	84.8	88.0	90.3	91.3	91.7	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8
>= 800	39.4	81.8	87.4	90.8	93.2	93.6	94.3	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7
>= 700	39.4	83.2	89.0	92.7	95.4	95.9	96.5	96.8	96.8	96.9	96.9	96.9	96.9	96.9	96.9
>= 600	39.4	84.4	90.7	94.6	97.5	98.0	98.7	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2
>= 500	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8
>= 400	39.4	84.5	91.0	95.0	98.1	98.6	99.4	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0
>= 300	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0
>= 200	39.4	84.5	90.2	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0
>= 100	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	39.4	84.5	90.8	95.0	98.1	98.6	99.4	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 947

2 - CEILING VS VISIBILITY

00203239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP HOUR : 1300 LST

### PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

VISIBILITY (STATUTE MILES)									
CEILING		>=2		>=3		>=4		>=5	
>=10	>=6	>=5	>=4	>=3	>=2	>=1	>=1/2	>=1/4	>=1/4
UNLIMITED	47.7	77.2	80.0	81.8	82.1	82.3	82.3	82.3	82.3
>=20000	49.2	78.6	81.5	83.5	83.8	84.0	84.0	84.0	84.0
>=18000	48.2	79.0	81.8	83.8	84.1	84.4	84.4	84.4	84.4
>=16000	48.4	79.4	82.2	84.2	84.6	84.8	84.8	84.8	84.8
>=14000	48.9	80.0	82.9	85.0	85.3	85.5	85.5	85.5	85.5
>=12000	49.3	80.6	83.7	86.2	86.5	86.4	86.4	86.4	86.4
>=10000	49.6	81.6	84.5	86.6	87.0	87.2	87.2	87.2	87.2
>=9000	49.6	81.7	84.6	86.7	87.2	87.4	87.4	87.4	87.4
>=8000	49.9	83.0	85.9	88.1	88.7	88.9	88.9	88.9	88.9
>=7000	50.0	83.3	86.3	88.4	89.0	89.2	89.2	89.2	89.2
>=6000	50.1	83.4	86.4	88.5	89.1	89.3	89.3	89.3	89.3
>=5000	50.1	83.6	86.6	88.7	89.3	89.5	89.5	89.5	89.5
>=4500	50.0	83.8	86.8	88.9	89.5	89.7	89.7	89.7	89.7
>=4000	50.5	84.1	87.1	89.3	90.0	90.2	90.2	90.2	90.2
>=3500	50.7	84.5	87.4	89.6	90.3	90.5	90.5	90.5	90.5
>=3000	51.1	85.2	88.3	90.6	91.2	91.4	91.4	91.4	91.4
>=2500	51.6	86.0	89.1	91.4	92.1	92.3	92.3	92.3	92.3
>=2000	52.4	87.7	90.8	93.1	93.8	94.0	94.0	94.0	94.0
>=1800	52.5	88.3	91.3	93.7	94.3	94.5	94.5	94.5	94.5
>=1500	53.1	90.1	93.1	95.5	96.1	96.3	96.3	96.3	96.3
>=1200	53.3	91.2	94.3	96.6	97.3	97.5	97.5	97.5	97.5
>=1000	53.8	92.5	95.7	98.0	98.6	98.8	98.8	98.8	98.8
>=900	53.8	92.8	96.0	98.3	98.9	99.2	99.2	99.2	99.2
>=800	53.8	93.1	96.3	98.7	99.4	99.6	99.6	99.6	99.6
>=700	53.8	93.2	96.5	98.9	99.6	99.8	99.8	99.8	99.8
>=600	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=500	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=400	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=300	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=200	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=100	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0
>=0	53.8	93.4	96.7	99.2	99.8	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 946

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE								
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.6	83.2	85.4	85.6	85.7	95.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
>=20000	50.6	85.3	87.5	87.7	87.9	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>=18000	50.6	85.4	87.6	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>=16000	50.9	85.9	88.1	88.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
>=14000	51.2	86.6	88.9	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
>=12000	51.5	87.3	89.6	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
>=10000	52.2	88.7	91.1	91.3	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
>=9000	52.4	88.9	91.3	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
>=8000	52.9	89.8	92.4	92.6	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
>=7000	52.9	90.2	92.7	92.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
>=6000	52.9	90.3	92.8	93.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
>=5000	53.3	90.8	93.3	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
>=4500	53.3	90.9	93.4	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
>=4000	53.5	91.5	94.1	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
>=3500	53.8	92.1	94.5	94.7	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
>=3000	53.9	92.1	94.6	94.8	94.8	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
>=2500	54.1	92.5	95.0	95.4	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=2000	54.5	93.7	96.2	96.4	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
>=1800	54.5	94.1	96.6	96.8	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>=1500	54.5	94.4	96.9	97.1	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>=1200	54.7	95.0	97.7	97.9	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=1000	54.7	95.9	98.5	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
>=900	54.7	96.2	98.8	99.0	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
>=800	54.7	96.5	99.2	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
>=700	54.7	96.6	99.3	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=600	54.7	96.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=500	54.7	96.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
>=400	54.7	96.6	99.6	99.8	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	54.7	96.6	99.6	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=200	54.7	96.6	99.6	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=100	54.7	96.6	99.6	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=0	54.7	96.6	99.6	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5

TOTAL NO. OF OBS : 945

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

2 - CEILING VS VISIBILITY

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE							
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	47.2	76.8	77.7	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	78.0
>=20000	47.7	78.4	79.3	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.6
>=18000	47.8	78.6	79.5	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.8
>=16000	47.9	78.8	79.8	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.1
>=14000	48.5	79.8	80.9	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.2
>=12000	49.2	80.8	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.2
>=10000	49.5	81.7	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2
>=9000	49.5	81.7	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2
>=8000	49.8	82.6	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>=7000	50.2	83.0	84.2	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.5
>=6000	50.3	83.2	84.4	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.7
>=5000	50.5	83.5	84.7	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.1
>=4500	50.6	83.6	84.8	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.2
>=4000	50.6	83.7	84.9	85.1	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.3
>=3500	50.8	83.9	85.1	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.5
>=3000	50.9	84.3	85.4	85.6	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.9
>=2500	51.1	84.6	85.7	86.0	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.2
>=2000	51.3	85.3	86.5	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.9
>=1800	51.5	85.5	86.7	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.1
>=1500	51.8	86.5	87.6	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.1
>=1200	52.2	87.6	89.0	89.2	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.4
>=1000	52.5	88.9	90.3	90.5	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.7
>=900	52.6	90.0	91.3	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.9
>=800	52.6	91.4	92.9	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.6
>=700	52.7	93.3	94.9	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.6
>=600	52.9	95.5	97.5	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.4
>=500	52.9	96.1	98.6	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.6
>=400	52.9	96.2	98.9	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=300	52.9	96.2	98.9	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.0
>=200	52.9	96.2	98.9	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.0
>=100	52.9	96.2	98.9	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.0
>=0	52.9	96.2	98.9	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.0

TOTAL NO. OF OBS : 947

## 2 - CILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						PERCENTAGE FREQUENCY OF OCCURRENCE									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	49.3	69.9	70.3	70.3	70.3	70.4	70.4	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5
>=20000	49.5	71.2	71.6	71.6	71.6	71.6	71.7	71.7	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=18000	49.5	71.4	71.6	71.6	71.6	71.6	71.7	71.7	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=16000	49.7	71.5	72.0	72.0	72.0	72.1	72.1	72.1	72.1	72.2	72.2	72.2	72.2	72.2	72.2	72.2
>=14000	50.0	72.1	72.6	72.6	72.6	72.6	72.7	72.7	72.7	72.9	72.9	72.9	72.9	72.9	72.9	72.9
>=12000	50.3	73.0	73.5	73.5	73.5	73.5	73.6	73.6	73.6	73.7	73.7	73.7	73.7	73.7	73.7	73.7
>=10000	50.7	73.7	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=9000	50.7	73.7	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5
>=8000	51.0	74.5	75.2	75.2	75.2	75.3	75.3	75.4	75.4	75.5	75.5	75.5	75.5	75.5	75.5	75.5
>=7000	51.2	74.6	75.3	75.3	75.4	75.4	75.5	75.5	75.5	75.5	75.6	75.6	75.6	75.6	75.6	75.6
>=6000	51.3	74.7	75.4	75.4	75.5	75.5	75.6	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7
>=5000	51.7	75.3	75.9	75.9	76.0	76.0	76.1	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2
>=4500	51.7	75.3	75.9	76.0	76.0	76.1	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>=4000	51.7	75.5	76.1	76.1	76.2	76.2	76.3	76.3	76.3	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>=3500	51.9	75.7	76.3	76.3	76.4	76.4	76.5	76.5	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6
>=3000	52.2	76.3	76.9	76.9	77.0	77.0	77.1	77.1	77.1	77.1	77.3	77.3	77.3	77.3	77.3	77.3
>=2500	52.6	76.7	77.4	77.5	77.5	77.5	77.6	77.6	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.7
>=2000	52.9	77.1	77.8	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.1	78.1	78.1	78.1	78.1	78.1
>=1800	53.1	77.5	78.1	78.2	78.2	78.3	78.3	78.3	78.3	78.4	78.4	78.4	78.4	78.4	78.4	78.4
>=1500	53.9	79.2	80.0	80.1	80.1	80.2	80.2	80.2	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.3
>=1200	54.7	81.1	81.2	82.0	82.0	82.1	82.1	82.1	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2
>=1000	55.5	83.9	84.6	84.6	84.7	84.7	84.8	84.8	84.8	84.9	84.9	84.9	84.9	84.9	84.9	84.9
>=900	56.3	85.7	86.5	86.5	86.6	86.6	86.7	86.7	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>=800	56.6	87.8	88.6	88.6	88.7	88.7	88.8	88.8	88.8	88.8	88.9	88.9	88.9	88.9	88.9	88.9
>=700	56.8	90.5	91.3	91.4	91.4	91.5	91.6	91.6	91.6	91.6	91.7	91.7	91.7	91.7	91.7	91.7
>=600	57.1	93.3	94.2	94.4	94.4	94.7	94.8	94.8	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9
>=500	57.4	95.6	96.8	97.2	97.2	97.4	97.5	97.5	97.5	97.5	97.6	97.6	97.6	97.6	97.6	97.6
>=400	57.4	97.0	98.4	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5
>=300	57.4	97.3	98.7	99.4	99.6	99.8	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9
>=200	57.4	97.4	98.8	99.5	99.7	99.7	99.7	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
>=100	57.4	97.4	98.8	99.5	99.5	99.7	99.7	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
>=0	57.4	97.4	98.8	99.5	99.5	99.7	99.7	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 954

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : SEP  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1							
UNLIMITED	41.1	64.2	65.7	66.4	66.7	66.8	66.9	66.9	66.9	66.9	66.9	66.9	66.9
>=20000	41.5	65.4	66.9	67.7	68.0	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>=18000	41.6	65.6	67.1	67.9	68.1	68.2	68.3	68.4	68.4	68.4	68.4	68.4	68.4
>=16000	41.7	65.8	67.3	68.1	68.4	68.5	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>=14000	42.0	66.5	68.0	68.8	69.1	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3
>=12000	42.6	67.3	68.9	69.7	70.0	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
>=10000	43.0	68.2	69.8	70.6	70.9	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>=9000	43.1	68.3	69.9	70.7	71.0	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.3
>=8000	43.4	69.1	70.7	71.5	71.9	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>=7000	43.5	69.4	71.0	71.8	72.2	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=6000	43.6	69.5	71.1	71.9	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=5000	43.8	69.8	71.4	72.3	72.6	72.7	72.8	72.8	72.8	72.9	72.9	72.9	72.9
>=4500	43.9	70.1	71.7	72.5	72.8	72.9	73.0	73.0	73.0	73.1	73.1	73.1	73.1
>=4000	44.0	70.3	71.9	72.8	73.1	73.2	73.3	73.4	73.4	73.4	73.4	73.4	73.4
>=3500	44.2	70.6	72.2	73.1	73.4	73.5	73.6	73.6	73.6	73.7	73.7	73.7	73.7
>=3000	44.5	71.3	72.9	73.7	74.1	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.4
>=2500	45.1	72.1	73.8	74.6	75.0	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
>=2000	45.9	73.6	75.3	76.2	76.5	76.6	76.7	76.8	76.8	76.8	76.8	76.8	76.8
>=1800	46.2	74.2	75.9	76.8	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=1500	47.2	76.7	78.4	79.3	79.7	79.7	79.9	79.9	79.9	79.9	79.9	79.9	79.9
>=1200	48.1	79.1	81.0	82.0	82.4	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6
>=1000	49.2	82.3	84.2	85.1	85.6	85.7	85.8	85.8	85.9	85.9	85.9	85.9	85.9
>=900	49.5	84.1	86.1	87.1	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
>=800	49.9	86.2	88.4	89.4	89.9	90.0	90.1	90.2	90.2	90.2	90.2	90.2	90.2
>=700	50.2	88.6	90.9	92.0	92.6	92.7	92.8	92.9	92.9	93.0	93.0	93.0	93.0
>=600	50.4	90.5	93.2	94.4	95.0	95.1	95.4	95.4	95.5	95.5	95.5	95.5	95.5
>=500	50.6	92.1	95.0	96.0	97.2	97.4	97.6	97.7	97.7	97.8	97.8	97.8	97.8
>=400	50.7	92.9	96.1	97.8	98.6	98.8	99.0	99.1	99.2	99.2	99.2	99.2	99.2
>=300	50.7	93.1	96.5	98.2	99.1	99.2	99.5	99.6	99.7	99.7	99.7	99.7	99.7
>=200	50.7	93.2	96.6	98.3	99.2	99.4	99.7	99.8	99.8	99.9	99.9	99.9	99.9
>=100	50.7	93.2	96.6	98.3	99.2	99.4	99.6	99.8	99.8	99.9	99.9	99.9	99.9
>=0	50.7	93.2	96.6	98.3	99.2	99.4	99.6	99.8	99.8	99.9	99.9	99.9	99.9

TOTAL NO. OF OBS : 7607

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH ACT. : M  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)					>56	TOTAL	MEAN
		1 - 3	4 - 6	7-10	11-16	17-21			
N	2.5	2.6	1.1	.5	.5	.2	.0	.0	7.5
NNE	.8	1.0	.1	.0	.0	.0	.0	.0	1.9
NE	.7	.1	.2	.3	.0	.0	.0	.0	1.3
ENE	.4	.3	.0	.0	.0	.0	.0	.0	5.2
E	2.4	1.6	.1	.0	.0	.0	.0	.0	.7
SE	2.1	3.5	.6	.1	.0	.0	.0	.0	3.7
SSE	.9	2.4	.5	.7	.1	.0	.0	.0	3.3
SSF	.9	.7	.5	.4	.3	.0	.0	.0	6.5
S	.8	1.3	.3	.4	.0	.1	.0	.0	4.6
SSW	.5	1.5	.4	.1	.0	.0	.0	.0	6.3
SW	1.2	2.1	.9	.3	.0	.0	.0	.0	2.8
WSW	.5	2.9	2.3	.5	.0	.0	.0	.0	7.1
W	2.9	7.0	6.1	2.6	.1	.0	.0	.0	2.9
WNW	1.6	2.9	1.1	.6	.0	.0	.0	.0	6.4
NNW	1.0	1.8	.9	.3	.1	.0	.0	.0	5.0
NNW	1.6	1.6	.8	.8	.0	.0	.0	.0	4.5
VAR	.1	.0	.0	.0	.0	.0	.0	.0	6.7
CLM	0	0	.0	.0	.0	.0	.0	.0	18.1
ALL	21.2	33.1	16.0	7.1	1.1	.4	.0	.0	5.5
									6.0
									5.8
									5.0
									0
									0
									21.2
									0
									100.0
									4.6

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

SURFACE WINDS

0023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT. HOUR : 0400 LST

**PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)**

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN
		1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56	WIND	SPEED
N	4.2	3.4	1.9	1.0	.2	.0	.0	.0	.0	.0	.0	10.8	5.4
NNE	2.1	1.3	.4	.0	.1	.0	.0	.0	.0	.0	.0	3.9	4.3
NE	1.5	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	1.8	3.0
ENE	.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	1.3	3.7
E	3.2	2.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	5.9	3.2
ESE	2.3	3.4	1.1	.2	.1	.0	.0	.0	.0	.0	.0	7.3	5.2
SE	1.9	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	5.0	5.5
SSE	.4	.7	.5	.2	.2	.1	.0	.0	.0	.0	.0	2.1	8.3
S	.2	.8	.8	.2	.0	.1	.0	.0	.0	.0	.0	2.1	7.4
SSW	.6	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.7	5.4
SW	1.1	2.2	.8	.2	.0	.0	.0	.0	.0	.0	.0	4.3	5.2
WSW	1.1	2.2	1.0	.4	.1	.0	.0	.0	.0	.0	.0	4.8	5.9
W	1.9	5.1	5.9	.5	.0	.0	.0	.0	.0	.0	.0	13.5	6.4
WNW	1.9	2.8	1.5	.1	.1	.0	.0	.0	.0	.0	.0	6.5	5.3
NW	1.1	1.7	.6	.2	.1	.0	.0	.0	.0	.0	.0	3.7	5.2
NNW	1.4	1.8	1.2	.7	.3	.0	.0	.0	.0	.0	.0	5.4	6.7
VAR	0	0	0	0	0	0	0	0	0	0	0	0	0
CLM	0	0	0	0	0	0	0	0	0	0	0	0	0
ALL	25.7	30.9	17.4	4.7	1.1	.4	.0	.0	.0	.0	.0	100.0	4.4

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 992

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA 1955-1986  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	3	4	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN
															%	WIND SPEED
N	3.3	4.4	1.2	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	9.9	5.4
NNE	.7	1.4	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	5.4
NE	1.1	.7	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	4.5
ENE	.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	4.1
E	2.8	1.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	3.8
ESE	2.7	4.3	1.8	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.4	5.2
SE	1.0	2.0	1.5	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2	6.4
SSE	.1	.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	6.9
S	.9	1.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	5.5
SSW	.7	1.2	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	5.3
SW	.7	2.4	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	5.8
WSW	.8	2.7	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	6.2
W	1.0	4.0	3.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	6.5
WNW	1.1	2.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	5.3
NNW	1.6	1.6	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	5.0
NNW	2.4	2.9	1.0	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.0	0.0
ALL	21.7	34.8	15.1	4.7	1.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0	4.4

TOTAL NO. OF OBS : 952

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : ACT  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55			
N	1.2	2.3	1.4	.8	.2	.3	.1	.0	.0	.0	.0	0.4	6.4	7.7
NNE	.2	.3	.1	.1	.2	.0	.0	.0	.0	.0	.0	0.9	8.7	
NE	.1	.1	.3	.2	.1	.0	.0	.0	.0	.0	.0	0.8	9.3	
ENE	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	0.2	14.5	
E	.4	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	1.0	5.4	
ESE	.4	.3	.6	.5	.1	.0	.0	.0	.0	.0	.0	1.9	8.3	
SE	.8	2.1	.6	.8	.1	.0	.0	.0	.0	.0	.0	4.4	6.9	
SSE	2.5	3.1	.9	.2	.1	.0	.0	.0	.0	.0	.0	6.9	4.9	
S	5.8	4.9	1.6	.3	.0	.2	.0	.0	.0	.0	.0	12.9	4.6	
SSW	2.2	2.4	.1	.3	.0	.0	.0	.0	.0	.0	.0	5.0	4.3	
SW	2.5	3.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	6.6	4.2	
WSW	3.0	3.1	1.4	.5	.0	.0	.0	.0	.0	.0	.0	8.1	5.0	
W	2.9	4.4	4.1	.5	.1	.0	.0	.0	.0	.0	.0	12.1	5.7	
NNW	.9	2.9	1.4	.1	.2	.0	.0	.0	.0	.0	.0	5.4	6.1	
NW	2.0	3.5	1.8	.4	.0	.0	.0	.0	.0	.0	.0	7.8	5.2	
NNW	1.6	5.0	2.1	1.1	.3	.0	.0	.0	.0	.0	.0	10.2	6.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	0.0	
ALL	26.7	38.2	17.4	6.0	1.5	.5	.1	.0	.0	.0	.0	100.0	5.1	

TOTAL NO. OF OBS. :

992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)						>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27			
N	*1	1.1	.7	.4	.4	.2	.0	*0	*0	2.9
NNE	*0	.2	.4	.2	.1	.0	.0	*0	*0	10.2
NE	*0	.1	.3	.1	.0	.1	.0	*0	*0	11.5
ENE	*1	.0	.1	.2	.0	.0	.0	*0	*0	9.0
E	*0	.1	.1	.0	.0	.0	.0	*0	*0	4.2
ESE	*0	.1	.3	.0	.1	.0	.0	*0	*0	10.2
SE	*1	.3	.4	.4	.1	.0	.0	*0	*0	1.3
SSE	*7	1.0	.1	.2	.1	.0	.0	*0	*0	5.4
S	1-3	1.6	.5	.2	.2	.1	.0	*0	*0	3.9
SSW	1.6	1.5	.9	.6	.0	.1	.0	*0	*0	6.1
SW	1.5	2.1	.6	.5	.0	.0	.0	*0	*0	4.7
WSW	2.3	4.0	3.3	1.6	.0	.0	.0	*0	*0	11.3
W	1.6	7.0	11.7	5.4	.4	.2	.0	*0	*0	26.6
NNW	1.0	3.6	6.7	1.2	.1	.0	.0	*0	*0	12.7
NW	*5	6.8	6.5	1.1	.0	.0	.0	*0	*0	14.8
NNW	*5	4.3	4.6	.6	.0	.0	.0	*0	*0	6.7
VAR	*0	*0	*0	*0	*0	*0	*0	*0	*0	*0
CLM	*0	*0	*0	*0	*0	*0	*0	*0	*0	*0
ALL	11.7	35.9	37.2	12.8	1.4	.9	.0	*0	*0	100.0

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	%	MEAN WIND SPEED
N	.0	.3	.4	.7	.3	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	1.8	12.6	
NNE	.0	.1	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.5	11.6	
NE	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.3	5.3	
ENE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.2	10.0	
E	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.3	5.3	
ESE	.1	.3	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.7	8.0	
SE	.0	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.7	12.4	
SSE	.1	.1	.1	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	0.6	11.0	
S	.2	.1	.6	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	11.2	
SSW	.7	.4	.7	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	8.8	
SW	.2	1.1	1.0	1.3	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	7.3	
WSW	.3	1.4	3.2	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	8.9	
W	.6	4.9	24.2	19.5	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.4	10.2	
NNW	.1	3.4	9.7	4.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.9	9.3	
NW	.5	3.9	3.9	4.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	7.1	
NNW	.2	1.6	.9	4.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	7.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	0.0	
ALL	2.8	17.3	45.6	29.6	2.5	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	9.4	

TOTAL NO. OF OBS : 992

NOTES : # = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 OFFICE OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NCNE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

		SPEED (KNOTS)																													
DIR.	16 PT.	1	-	3	4	-	6	7	-	10	11	-	16	22	-	27	28	-	33	34	-	41	-	47	48	-	55	>=55	TOTAL	%	MEAN
NNE	1.1	2.4	1.0	4	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8			
NE	1.1	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.4			
ENE	0.4	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.0		
E	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
ESE	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SE	0.1	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SSE	0.2	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
S	0.4	0.3	0.3	0.6	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SSW	0.1	0.7	0.7	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SW	0.6	1.4	0.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SW	1.0	1.9	2.2	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
W	2.4	9.9	16.2	7.6	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
WNW	0.1	5.3	5.7	1.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
NNW	1.4	3.4	1.9	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
NN	1.7	2.3	1.6	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
VAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
CLM	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
ALL	13.6	24.9	32.2	14.5	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

NOTES : \* = PERCENT < .05

TOTAL NO. OF OES :

992

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)						>=56	TOTAL	MEAN WIND SPEED
		1-3	4-6	7-10	11-16	17-21	22-27			
N	2.6	3.0	1.3	.8	.2	.0	.1	.0	.0	8.1
NNE	.7	.6	.0	.3	.0	.0	.0	.0	.0	1.6
NE	.8	.4	.0	.0	.0	.0	.0	.0	.0	5.1
ENE	.5	.3	.0	.0	.0	.0	.0	.0	.0	1.2
E	.2	.6	.1	.0	.0	.0	.0	.0	.0	3.0
ESE	1.1	.6	.2	.1	.1	.0	.0	.0	.0	4.0
SE	.5	.6	.6	.3	.1	.0	.0	.0	.0	2.3
SSE	.1	.3	.1	.5	.1	.0	.0	.0	.0	2.1
S	1.1	.6	.6	.9	.2	.0	.0	.0	.0	10.6
SSW	.1	.6	.7	.0	.0	.0	.0	.0	.0	3.4
SW	1.1	2.9	1.3	.4	.0	.1	.0	.0	.0	4.5
WSW	1.1	3.4	2.8	1.1	.0	.0	.0	.0	.0	5.9
W	3.2	8.3	8.2	4.0	.0	.0	.0	.0	.0	6.8
NNW	2.2	3.4	2.2	.7	.0	.0	.0	.0	.0	6.6
NN	2.1	1.7	1.6	.9	.1	.0	.0	.0	.0	5.9
NNW	1.2	2.0	.8	.7	.1	.0	.0	.0	.0	6.2
VAR	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.8
CLM	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.5
ALL	19.4	29.7	20.5	8.8	.9	.1	.0	.0	.0	5.0

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

	16 PT.	1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>55	TOTAL	MEAN
DIF.																	WIND SPEED	
N	1.6	2.5	1.1	7	.7												0.0	6.5
NNE		.7	.3		.1												0.0	1.9
NE		.6	.4		.2												0.0	4.9
ENE		.2	.2		.1												0.0	4.7
E		1.2	.8		.2												0.0	3.9
ESE		1.1	1.6		.6												0.0	5.5
SE		.7	1.2		.6												0.0	6.8
SSE		.6	.9		.3												0.0	7.0
S		1.2	1.4		.7												0.0	6.3
SSW		.8	1.1		.5												0.0	5.9
SW		1.4	2.4		.9												0.0	5.4
WSW		1.7	2.7		2.3												0.0	7.3
W		2.2	6.3		10.0												0.0	23.5
NNW		1.4	3.3		3.7												0.0	8.0
NW		1.2	3.0		2.2												0.0	7.1
NNW		1.7	2.7		1.6												0.0	6.2
VAR		0	0		0												0.0	0
CLM		0	0		0												0.0	13.1
ALL		17.8	31.0		25.2												0.0	100.0
																		5.9

TOTAL NO. OF OBS : 7935

NOTES : \* = PERCENT &lt; .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=3
		>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1/2	>=5/16	>=1/4						
UNLIMIT	39.7	62.9	63.9	64.5	64.8	64.9	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
>=20000	40.3	64.0	65.1	65.7	66.0	66.1	66.6	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
>=18000	40.7	64.4	65.4	66.1	66.4	66.5	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=16000	40.7	64.4	65.5	66.1	66.4	66.5	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
>=14000	41.3	65.1	66.2	66.3	67.1	67.1	67.2	67.7	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>=12000	42.1	66.3	67.5	68.2	68.5	68.6	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
>=10000	42.7	67.0	68.3	68.9	69.2	69.3	69.8	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9
>=9000	42.7	67.1	68.4	69.0	69.3	69.4	69.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=8000	43.6	68.5	69.7	70.3	70.6	70.7	71.2	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
>=7000	43.8	68.8	70.0	70.6	70.9	71.0	71.5	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
>=6000	44.0	69.1	70.3	70.9	71.2	71.3	71.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
>=5000	44.3	69.5	70.6	71.4	71.7	71.8	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=4500	44.7	70.3	71.6	72.2	72.5	72.6	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=4000	45.0	71.1	72.4	73.0	73.3	73.4	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>=3500	45.2	71.4	72.7	73.3	73.6	73.7	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
>=3000	45.8	72.5	73.8	74.4	74.7	74.9	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
>=2500	46.3	73.3	74.6	75.3	75.6	75.8	76.3	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
>=2000	47.3	74.9	76.3	76.9	77.2	77.4	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=1800	47.5	75.8	77.1	77.7	78.0	78.2	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
>=1500	48.9	78.2	79.5	80.1	80.4	80.6	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=1200	49.5	80.7	82.0	82.6	83.1	83.3	83.8	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
>=1000	50.1	84.0	85.6	86.3	86.6	86.8	87.3	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
>=900	50.4	86.1	87.7	88.4	88.7	88.9	89.5	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
>=800	50.7	88.0	89.4	90.4	90.7	90.9	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
>=700	50.9	89.4	91.5	92.7	92.7	92.9	93.5	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
>=600	51.2	91.0	93.5	94.2	94.8	95.0	95.6	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
>=500	51.3	91.7	94.4	95.3	95.9	96.1	96.9	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=400	51.3	92.4	95.3	96.8	97.7	97.9	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>=300	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=200	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=100	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=0	51.4	92.6	95.5	97.0	98.0	98.2	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4

TOTAL NO. OF OBS : 986

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS!)

CEILING	VISIBILITY (STATUTE MILES)										
	>= 3	>= 2 1/2	>= 2	>= 1 1/2	>= 1	>= 1/4	>= 3/4	>= 5/8	>= 1/2	>= 5/16	>= 1/4
UNLIMIT	56.1	57.3	58.1	58.5	58.6	58.8	59.0	59.0	59.0	59.0	59.0
>= 20000	35.6	57.2	58.5	59.2	59.7	59.8	60.0	60.2	60.2	60.2	60.2
>= 18000	35.7	57.6	58.9	59.6	60.1	60.2	60.4	60.6	60.6	60.6	60.6
>= 16000	35.7	57.6	58.9	59.6	60.1	60.2	60.4	60.6	60.6	60.6	60.6
>= 14000	35.9	58.0	59.2	59.9	60.4	60.5	60.7	60.9	60.9	60.9	60.9
>= 12000	36.5	59.2	60.5	61.2	61.7	61.8	62.0	62.2	62.2	62.2	62.2
>= 10000	37.1	60.5	61.8	62.5	63.0	63.1	63.3	63.5	63.5	63.5	63.5
>= 9000	37.3	60.8	62.1	62.8	63.3	63.4	63.6	63.8	63.8	63.8	63.8
>= 8000	37.8	61.7	63.3	63.7	64.2	64.3	64.5	64.7	64.7	64.7	64.7
>= 7000	37.9	61.9	63.2	63.9	64.4	64.5	64.7	64.9	64.9	64.9	64.9
>= 6000	39.0	62.2	63.5	64.2	64.7	64.8	65.0	65.2	65.2	65.2	65.2
>= 5000	39.3	62.5	63.8	64.5	65.0	65.1	65.3	65.6	65.6	65.6	65.6
>= 4500	39.7	63.0	64.2	65.0	65.6	65.7	65.9	66.1	66.1	66.1	66.1
>= 4000	39.0	63.6	64.9	65.7	66.2	66.3	66.5	66.7	66.7	66.7	66.7
>= 3500	39.3	64.0	65.3	66.1	66.4	66.6	66.7	66.9	66.9	66.9	66.9
>= 3000	36.8	64.8	66.2	66.9	67.5	67.6	67.8	68.1	68.1	68.1	68.1
>= 2500	40.6	66.5	67.8	68.5	69.1	69.2	69.4	69.7	69.7	69.7	69.7
>= 2000	41.5	68.1	69.5	70.2	70.9	71.0	71.1	71.4	71.4	71.4	71.4
>= 1800	41.8	69.0	70.4	71.1	71.8	72.0	72.3	72.3	72.3	72.3	72.3
>= 1500	43.4	72.0	73.5	74.3	75.0	75.1	75.4	75.7	75.7	75.7	75.7
>= 1200	44.3	75.9	77.3	78.1	78.8	79.0	79.2	79.5	79.5	79.5	79.5
>= 1000	45.2	79.5	81.1	82.0	82.7	82.8	83.2	83.5	83.5	83.5	83.5
>= 900	45.7	81.4	82.9	84.0	84.9	85.0	85.5	85.8	85.8	85.8	85.8
>= 800	46.1	83.9	85.5	86.6	87.5	87.6	88.1	88.4	88.4	88.4	88.4
>= 700	46.5	85.7	87.6	88.6	89.9	90.0	90.5	90.8	90.8	90.8	90.8
>= 600	47.2	88.0	90.2	91.5	92.6	92.7	93.4	93.7	93.7	93.7	93.7
>= 500	47.3	88.7	91.2	92.7	93.9	94.0	94.7	95.0	95.0	95.0	95.0
>= 400	47.4	89.4	92.4	94.1	95.6	95.8	96.9	97.2	97.2	97.2	97.2
>= 300	47.4	89.4	92.5	94.2	95.8	96.3	97.5	98.0	98.0	98.3	98.3
>= 200	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.4	98.9	98.9
>= 100	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.7	99.0	99.1
>= 0	47.4	89.6	92.7	94.4	96.1	96.6	97.8	98.4	98.7	99.0	99.1

TOTAL NO. OF OVS : 987

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						
	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=0
UNLIMIT	52.5	53.8	54.0	54.3	54.5	54.6	54.6
>=20000	52.3	53.9	55.2	55.4	55.7	56.0	56.1
>=18000	52.8	54.4	55.7	56.0	56.3	56.5	56.6
>=16000	52.0	54.0	55.4	55.7	56.0	56.3	56.4
>=14000	52.2	49.0	52.8	54.4	55.7	56.0	56.2
>=12000	27.6	49.7	53.5	55.1	56.5	57.0	57.2
>=10000	28.4	51.4	55.3	57.0	58.3	58.8	59.0
>=8000	29.4	53.0	57.0	58.6	60.0	60.5	60.7
>=6000	29.5	53.3	57.3	58.9	60.3	60.8	61.0
>=4000	29.6	54.1	58.1	59.8	61.1	61.6	61.8
>=2000	29.9	54.7	58.8	60.5	61.9	62.4	62.6
>=1000	30.0	55.1	59.2	60.9	62.3	62.8	63.0
>=500	30.2	55.3	59.4	61.1	62.5	63.0	63.2
>=4500	30.3	55.5	59.8	61.4	62.8	63.3	63.5
>=4000	30.3	56.2	60.5	62.1	63.6	64.1	64.6
>=3500	30.7	56.8	61.1	62.7	64.2	64.7	65.0
>=3000	30.8	57.1	61.4	63.0	64.5	65.1	65.3
>=2500	31.4	58.8	63.1	65.0	66.4	67.0	67.2
>=2000	32.0	60.7	65.1	66.9	68.4	69.0	69.3
>=1600	32.2	61.4	65.8	67.6	69.2	70.0	70.2
>=1500	33.3	64.5	69.0	70.9	72.5	73.3	73.5
>=1200	34.0	67.5	72.2	74.3	76.1	76.9	77.1
>=1000	34.9	70.7	75.8	78.0	79.9	80.7	80.9
>=900	35.1	72.3	77.6	80.1	82.0	83.0	83.2
>=800	35.5	74.7	80.6	83.5	85.4	86.4	86.8
>=700	35.5	75.4	81.5	84.8	86.9	87.1	87.4
>=600	35.5	76.1	82.8	87.2	88.4	88.7	89.0
>=500	35.6	77.0	84.7	88.3	90.6	92.2	92.5
>=400	35.6	77.6	85.5	89.7	92.4	94.8	95.1
>=300	35.6	77.6	85.5	89.7	92.7	95.2	95.8
>=200	35.6	77.6	85.6	89.6	92.9	95.4	96.2
>=100	35.6	77.6	85.6	89.6	93.2	95.4	96.1
>=0	35.6	77.6	85.6	89.6	93.2	95.4	96.1

TOTAL NO. OF OBS : 974

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)								>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1	>=1/2						
UNLIMIT	22.3	46.0	52.3	56.5	59.2	60.4	61.6	61.7	61.7	62.0	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
>=20000	22.9	48.3	54.8	59.1	62.0	63.2	64.4	64.5	64.5	64.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
>=18000	23.1	49.1	55.5	59.8	62.7	63.9	65.1	65.2	65.2	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=16000	23.1	49.1	55.5	59.8	62.7	63.9	65.1	65.2	65.2	65.5	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
>=14000	23.2	49.2	55.7	60.0	62.9	64.0	65.2	65.3	65.4	65.4	65.7	65.8	65.8	65.8	65.8	65.8	65.8	65.8
>=12000	24.4	51.4	58.1	62.4	65.3	66.5	67.7	67.8	67.8	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
>=10000	24.7	52.2	58.9	63.4	66.5	67.8	69.0	69.1	69.1	69.4	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
>=9000	24.7	52.4	59.2	63.7	66.8	68.1	69.3	69.4	69.4	69.7	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
>=8000	25.0	53.5	60.3	64.9	68.1	69.3	70.6	70.7	70.7	71.0	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
>=7000	25.1	53.8	60.6	65.3	68.5	69.7	71.0	71.1	71.1	71.4	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=6000	25.3	54.0	60.8	65.5	68.7	69.9	71.2	71.3	71.3	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
>=5000	25.4	54.3	61.2	65.9	69.1	70.4	71.6	71.7	71.7	72.0	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
>=4500	25.5	54.6	61.5	66.2	69.4	70.7	71.9	72.0	72.0	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
>=4000	26.0	55.4	62.0	67.0	70.2	71.5	72.7	72.8	72.8	73.1	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
>=3500	26.3	56.0	62.8	67.7	70.9	72.1	73.3	73.5	73.5	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
>=3000	26.5	56.8	63.7	68.6	71.8	73.0	74.3	74.4	74.4	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=2500	27.1	58.1	65.2	70.0	73.2	74.5	75.7	75.8	75.8	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
>=2000	28.1	60.1	67.6	72.5	75.8	77.1	78.4	78.6	78.6	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
>=1800	28.4	61.4	68.9	73.9	77.2	78.5	79.9	80.1	80.1	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=1500	29.1	64.7	72.3	77.5	82.3	83.7	83.9	83.9	83.9	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>=1250	29.5	66.2	74.7	80.5	82.3	84.0	86.4	86.6	86.6	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
>=1000	29.9	68.8	77.3	82.6	86.3	87.7	89.5	89.6	89.6	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
>=900	29.9	69.7	78.4	84.5	88.1	89.6	91.4	91.7	91.7	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
>=800	29.9	70.5	79.6	85.8	89.5	90.9	92.9	93.2	93.2	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
>=700	29.9	71.1	80.5	87.3	91.0	92.7	94.7	95.1	95.1	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
>=600	30.0	71.5	81.1	88.2	92.1	93.8	96.1	96.6	96.6	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=500	30.0	71.6	81.3	88.7	92.7	94.3	96.7	97.2	97.2	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
>=400	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.0	98.2	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
>=300	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.0	98.2	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=200	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.0	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=100	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.0	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5
>=0	30.0	71.6	81.3	88.7	93.0	94.6	97.2	98.0	98.0	98.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5

TOTAL NO. OF OPS : 968

968

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)								>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	1/4	>=1/4	>=3/4	
UNLIMIT	30.9	60.5	65.6	70.8	73.1	73.9	74.8	74.9	74.9	75.2	75.2	75.3	75.4
>=20000	31.7	62.7	68.2	73.5	75.9	76.7	77.7	77.6	77.6	78.0	78.0	78.1	78.2
>=18000	31.9	63.3	68.8	74.1	76.6	77.4	78.4	78.5	78.5	78.7	78.7	78.8	78.9
>=16000	31.9	63.3	68.8	74.1	76.6	77.4	78.4	78.5	78.5	78.7	78.7	78.8	78.9
>=14000	32.3	63.8	69.4	74.7	77.2	78.1	79.0	79.1	79.1	79.3	79.3	79.4	79.5
>=12000	33.6	65.7	71.4	76.7	79.2	80.0	81.0	81.2	81.2	81.4	81.4	81.5	81.6
>=10000	34.2	66.8	72.6	77.9	80.5	81.3	82.2	82.4	82.4	82.6	82.6	82.7	82.8
>=9000	34.5	67.4	73.3	78.6	81.2	82.0	83.0	83.2	83.2	83.4	83.4	83.5	83.6
>=8000	35.0	68.7	74.6	79.2	82.5	82.4	84.3	84.5	84.5	84.7	84.7	84.8	84.9
>=7000	35.2	69.9	74.8	80.1	82.7	83.6	84.5	84.7	84.7	84.9	84.9	85.0	85.1
>=6000	35.4	69.3	75.3	80.6	83.2	84.0	84.9	85.1	85.1	85.3	85.3	85.4	85.6
>=5000	35.7	69.8	75.7	81.0	83.7	84.5	85.4	85.7	85.7	85.9	85.9	86.0	86.1
>=4500	36.0	70.2	76.2	81.5	84.2	85.0	86.0	86.2	86.2	86.4	86.4	86.5	86.6
>=4000	36.2	70.8	76.8	82.2	84.9	85.8	86.7	86.9	86.9	87.1	87.1	87.2	87.3
>=3500	36.7	71.6	77.2	83.1	85.8	86.6	87.5	87.7	87.7	87.9	87.9	88.0	88.1
>=3000	37.3	72.5	78.5	83.9	86.6	87.4	88.4	88.6	88.6	88.8	88.8	88.9	89.0
>=2500	37.9	73.7	79.8	85.2	87.9	88.8	89.8	90.0	90.0	90.2	90.2	90.3	90.4
>=2000	38.8	75.2	81.3	86.8	89.5	90.3	91.4	91.6	91.6	91.8	91.8	91.9	92.0
>=1800	39.0	75.7	81.8	87.3	90.0	90.9	91.9	92.1	92.1	92.3	92.3	92.4	92.5
>=1500	39.5	77.2	83.5	89.1	92.3	93.1	94.2	94.4	94.4	94.6	94.6	94.7	94.8
>=1200	40.1	78.7	85.2	91.0	94.3	95.1	96.1	96.6	96.6	96.8	96.8	96.9	97.0
>=1000	40.4	80.0	86.8	92.9	96.4	97.2	98.3	98.6	98.6	99.0	99.0	99.1	99.2
>=900	40.4	80.1	86.9	93.0	96.5	97.3	98.4	98.8	98.8	99.1	99.1	99.2	99.3
>=800	40.5	80.4	87.1	93.2	96.7	97.5	98.6	99.0	99.0	99.3	99.3	99.4	99.5
>=700	40.5	80.4	87.1	93.2	96.8	97.7	98.9	99.3	99.3	99.6	99.6	99.7	99.8
>=600	40.5	80.4	87.1	93.2	96.8	97.8	98.9	99.3	99.3	99.6	99.6	99.7	99.8
>=500	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0
>=400	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0
>=300	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0
>=200	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0
>=100	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0
>=0	40.5	80.4	87.2	93.3	97.0	97.9	99.1	99.5	99.5	99.8	99.8	99.9	100.0

TOTAL NO. OF OBS : 962

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=4						
UNLIMITED	35.5	67.4	71.5	73.7	75.0	75.2	75.4	75.4	75.4	75.4	75.4	75.4	75.4
>=20000	36.7	71.0	75.5	77.8	79.0	79.2	79.5	79.5	79.5	79.5	79.5	79.5	79.5
>=18000	37.2	71.4	76.1	78.5	79.8	80.0	80.2	80.2	80.2	80.2	80.2	80.2	80.2
>=16000	37.4	72.1	76.5	78.9	80.2	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6
>=14000	38.2	73.3	77.9	80.3	81.5	81.8	82.0	82.0	82.0	82.0	82.0	82.0	82.0
>=12000	39.4	75.5	80.2	82.6	83.8	84.0	84.3	84.3	84.3	84.3	84.3	84.3	84.3
>=10000	39.8	76.6	81.3	83.7	85.0	85.2	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>=9000	40.1	77.0	81.6	84.0	85.3	85.5	85.7	85.7	85.7	85.7	85.7	85.7	85.7
>=8000	41.0	78.4	83.1	85.6	86.9	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.3
>=7000	41.2	78.7	83.4	85.9	87.4	87.6	87.8	87.8	87.8	87.8	87.8	87.8	87.8
>=6000	41.3	78.8	83.5	86.0	87.5	87.7	87.9	87.9	87.9	87.9	87.9	87.9	87.9
>=5000	41.7	79.9	84.7	87.2	88.6	88.8	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>=4500	41.9	80.3	85.1	87.6	89.1	89.3	89.5	89.5	89.5	89.5	89.5	89.5	89.5
>=4000	42.3	81.3	86.1	88.7	90.2	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6
>=3500	43.0	82.3	87.1	89.7	91.1	91.3	91.6	91.6	91.6	91.6	91.6	91.6	91.6
>=3000	43.1	82.7	87.5	90.1	91.6	91.8	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=2500	43.9	93.9	98.6	99.2	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=2000	44.4	85.1	90.0	92.8	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
>=1800	44.6	85.8	90.7	93.6	95.0	95.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5
>=1500	45.3	87.2	92.2	95.1	96.7	97.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2
>=1200	45.5	87.9	92.9	95.8	97.4	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9
>=1000	45.6	88.1	93.1	96.1	97.7	98.0	98.2	98.2	98.2	98.2	98.2	98.2	98.2
>=900	45.6	88.1	93.1	96.4	97.9	98.2	98.4	98.4	98.4	98.4	98.4	98.4	98.4
>=800	45.7	88.4	93.3	96.9	98.4	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>=700	45.7	88.5	93.6	97.1	98.0	98.9	99.4	99.4	99.4	99.4	99.4	99.4	99.4
>=600	45.7	88.5	93.6	97.3	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7
>=500	45.7	88.5	93.7	97.5	99.3	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=400	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=300	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=0	45.7	88.5	93.7	97.6	99.4	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 959

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							PERCENTAGE FREQUENCY OF OCCURRENCE						
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	42.3	72.8	74.7	75.2	75.7	75.8	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
>=20000	42.7	74.7	76.7	77.1	77.6	77.7	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
>=18000	42.9	75.2	77.1	77.5	78.1	78.2	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=16000	43.0	75.4	77.3	77.7	78.4	78.5	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>=14000	43.8	76.9	79.1	79.6	80.2	80.3	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=12000	44.9	78.5	80.6	81.1	81.8	81.9	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
>=10000	45.5	79.5	81.6	82.2	82.8	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
>= 9000	45.7	79.7	81.9	82.4	83.0	83.1	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
>= 8000	46.4	81.1	83.2	83.8	84.4	84.5	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
>= 7000	46.5	81.3	83.6	84.1	84.7	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
>= 6000	46.7	81.6	83.9	84.4	85.1	85.2	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
>= 5000	47.0	82.2	84.4	84.9	85.6	85.7	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
>= 4500	47.3	82.8	85.1	85.6	86.2	86.3	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
>= 4000	47.7	83.9	86.2	86.7	87.3	87.4	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
>= 3500	47.9	84.0	86.3	86.8	87.4	87.5	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
>= 3000	48.1	84.8	87.2	87.7	88.4	88.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
>= 2500	48.5	85.3	87.6	88.1	88.8	88.9	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
>= 2000	48.8	86.2	89.2	89.7	90.5	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
>= 1800	48.9	87.6	90.0	90.5	91.2	91.3	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
>= 1500	49.5	89.5	91.9	92.4	93.1	93.2	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
>= 1200	49.7	90.4	92.9	93.7	94.4	94.5	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
>= 1000	50.1	91.1	93.7	94.5	95.3	95.4	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>= 900	50.2	91.8	94.3	95.2	95.9	96.0	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
>= 800	50.3	92.2	94.8	95.8	96.6	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
>= 700	50.3	92.7	95.9	96.8	97.6	97.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>= 600	50.5	93.5	96.8	97.7	98.6	98.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
>= 500	50.5	93.6	96.9	97.9	99.0	99.1	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5
>= 400	50.5	93.8	97.2	98.2	99.3	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8
>= 300	50.5	93.9	97.3	98.4	99.5	99.6	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>= 200	50.5	93.9	97.3	98.4	99.5	99.6	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>= 100	50.5	93.9	97.3	98.4	99.5	99.6	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
>= 0	50.5	93.9	97.3	98.4	99.5	99.6	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 970

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	43.2	69.1	69.8	70.4	70.7	70.8	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
>=20000	43.9	70.8	71.4	72.0	72.3	72.4	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
>=18000	44.2	71.1	71.7	72.3	72.6	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=16000	44.2	71.1	71.7	72.3	72.6	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
>=14000	44.6	71.9	72.5	73.1	73.4	73.5	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
>=12000	45.3	73.1	73.7	74.3	74.6	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
>=10000	45.9	74.2	74.8	75.5	75.8	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
>=9000	46.1	74.5	75.2	75.8	76.1	76.2	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3
>=8000	46.8	75.7	76.3	76.9	77.2	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
>=7000	47.0	76.0	76.6	77.2	77.5	77.6	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
>=6000	47.3	76.3	76.9	77.5	77.8	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
>=5000	47.6	76.7	77.3	78.0	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=4500	47.9	77.1	77.7	78.4	78.7	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
>=4000	48.0	77.4	78.0	78.7	79.0	79.1	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
>=3500	48.3	78.0	78.6	79.3	79.6	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>=3000	48.7	79.1	79.7	80.7	81.0	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
>=2500	49.8	80.2	80.9	81.8	82.1	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
>=2000	50.4	81.1	82.2	83.1	83.5	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
>=1800	50.6	82.0	82.7	83.6	84.0	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
>=1500	51.5	84.3	85.1	86.2	86.6	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
>=1200	52.3	86.4	87.2	88.2	88.6	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
>=1000	52.6	87.7	88.7	89.7	90.2	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
>=900	52.9	89.1	90.1	91.1	91.6	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=800	53.2	90.3	91.5	92.7	93.2	93.3	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=700	53.7	91.9	93.5	94.6	95.2	95.3	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=600	54.0	93.4	95.0	96.1	96.8	96.9	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
>=500	54.0	93.6	95.6	96.8	97.6	97.7	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
>=400	54.0	94.4	96.3	97.9	99.0	99.1	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
>=300	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=200	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>=100	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 0	54.0	94.5	96.4	98.0	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 982

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	34.5	60.2	63.2	65.2	66.3	66.7	67.1	67.2	67.3	67.3
>=20000	35.1	62.1	65.3	67.2	68.4	68.8	69.2	69.3	69.4	69.4
>=16000	35.4	62.6	65.8	67.8	69.0	69.3	69.8	69.9	69.9	69.5
>=14000	35.4	62.7	65.8	67.8	69.0	69.4	69.9	69.9	70.0	70.0
>=12000	36.0	65.1	68.4	70.4	71.6	72.0	72.4	72.5	72.6	72.6
>=10000	37.4	66.2	69.5	71.5	72.8	73.1	73.6	73.7	73.8	73.8
>=9000	37.6	66.5	69.8	71.9	73.1	73.5	73.9	74.0	74.1	74.1
>=8000	38.2	67.7	71.1	73.1	74.3	74.7	75.1	75.2	75.3	75.3
>=7000	38.4	68.0	71.4	73.4	74.7	75.1	75.5	75.6	75.7	75.7
>=6000	38.5	68.3	71.6	73.7	75.0	75.4	75.8	75.9	76.0	76.0
>=5000	38.8	68.7	72.1	74.2	75.5	75.9	76.3	76.4	76.5	76.5
>=4500	39.1	69.2	72.6	74.7	76.0	76.4	76.8	76.9	77.0	77.0
>=4000	39.3	69.9	73.4	75.5	76.8	77.1	77.6	77.7	77.8	77.8
>=3500	39.7	70.5	73.9	76.0	77.3	77.7	78.2	78.3	78.4	78.4
>=3000	40.0	71.3	74.7	76.9	78.2	78.6	79.0	79.1	79.2	79.3
>=2500	40.7	72.4	75.9	78.1	79.4	79.8	80.3	80.4	80.5	80.5
>=2000	41.4	74.0	77.6	79.8	81.2	81.5	82.1	82.2	82.3	82.3
>=1800	41.7	74.8	78.4	80.6	82.0	82.4	82.9	83.0	83.1	83.1
>=1500	42.6	77.2	80.8	83.1	84.6	85.1	85.6	85.7	85.8	85.8
>=1200	43.1	79.3	83.0	85.4	87.0	87.4	88.0	88.1	88.2	88.2
>=1000	43.6	81.3	85.2	87.8	89.3	89.7	90.4	90.5	90.6	90.7
>=900	43.8	82.3	86.4	89.1	90.7	91.1	91.8	91.9	92.0	92.1
>=800	44.0	83.6	87.8	90.6	92.2	92.6	93.3	93.5	93.6	93.7
>=700	44.2	84.4	88.9	91.8	93.6	94.0	94.8	95.0	95.2	95.2
>=600	44.4	85.3	89.5	93.1	94.5	95.3	96.0	96.4	96.6	96.6
>=500	44.4	85.7	90.7	93.8	95.7	96.2	97.1	97.4	97.5	97.6
>=400	44.4	86.0	91.2	94.6	96.7	97.1	98.3	98.5	98.6	98.6
>=300	44.4	86.1	91.2	94.6	96.8	97.2	98.5	98.8	99.0	99.3
>=200	44.4	86.1	91.3	94.7	96.9	97.4	98.5	99.0	99.2	99.4
>=100	44.4	86.1	91.3	94.7	96.9	97.4	98.5	99.0	99.4	99.5
>=0	44.4	86.1	91.3	94.7	96.9	97.4	98.5	99.0	99.4	99.5

TOTAL NO. OF OBS : 7788

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	-	3	4	-	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	TOTAL		MEAN WIND SPEED	
																%	%		
N	2.0	5.8	1	4	-	6	1	1	1	1	1	1	1	1	1	0.0	0.0	0.0	5.4
NNE	1.4	1.8		4		2		2		0		0		0		0.0	0.0	0.0	3.8
NE	.6	.8		2		1		1		0		0		0		0.0	0.0	0.0	4.3
ENE	.4	.6		1		1		1		0		0		0		0.0	0.0	0.0	4.6
E	2.0	3.4		7		0		0		0		0		0		0.0	0.0	0.0	4.4
ESE	2.1	4.2		4		3		0		0		0		0		0.0	0.0	0.0	5.2
SF	2.2	3.4		2		1		8		3		0		0		0.0	0.0	0.0	8.9
SSE	1.1	1.6		6		5		1		0		0		0		0.0	0.0	0.0	6.6
S	.6	.7		1		1		0		5		2		0		0.0	0.0	0.0	6.6
SSW	.5	.6		3		4		0		0		0		0		0.0	0.0	0.0	4.0
SW	.1	1.1		3		2		1		0		0		0		0.0	0.0	0.0	7.1
WSW	.4	4		8		2		1		1		0		0		0.0	0.0	0.0	7.2
W	1.2	2.5		5		7		2		0		0		0		0.0	0.0	0.0	9.2
NNW	.7	1.0		8		2		0		0		0		0		0.0	0.0	0.0	6.6
NW	1.4	1.9		3		7		2		0		0		0		0.0	0.0	0.0	6.9
NNW	1.5	3.3		1		3		8		1		0		0		0.0	0.0	0.0	6.9
VAR	.0	0		0		0		0		0		0		0		0.0	0.0	0.0	6.6
CLW	.0	0		0		0		0		0		0		0		0.0	0.0	0.0	0.0
ALL	16.1	33.0		15.2		7.5		2.5		.5		.1		.0		0.0	0.0	0.0	4.9

TOTAL NO. OF OBS. :

c59

NOTES :  
 \* = PERCENT < .05

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47 N LONG. : 122 19 W ELEV. : 15 FT  
MONTH : NOV HOUR : 0400 LST

**PERCENTAGE FREQUENCY OF WIND DIRECTION VS SPEED (FROM HOURLY OBSERVATIONS)**

INITIAL NO. OF OBS : 660

NOTES : PERCENT ← • 05

I - SURFACE WINDS

023239 : ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986  
CLASS : ALL WEATHER  
CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
DIRECTION VS SPEED  
(FROM HOURLY OBSERVATIONS)

DIR. 16 PT.	SPEED (KNOTS)												>=56	TOTAL	MEAN WIND SPEED
	1	-3	4	-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55			
N	4.3	3.7	1.8	.6	.1	.0	.0	.0	.0	.0	.0	.0	0.0	10.5	5.0
NNE	1.6	.6	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	3.1	4.6
NE	1.0	1.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	0.0	2.7	4.6
ENE	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	2.0	3.6
E	3.5	3.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	0.0	7.9	4.3
ESE	2.9	5.6	2.1	.7	.1	.0	.0	.0	.0	.0	.0	.0	0.0	11.5	5.5
SE	2.2	3.5	3.2	2.5	.4	.1	.0	.0	.0	.0	.0	.0	0.0	12.0	7.8
SSE	.9	1.4	.7	.8	.2	.0	.0	.0	.0	.0	.0	.0	0.0	4.9	9.3
S	1.1	1.2	.9	.8	.0	.0	.0	.0	.0	.0	.0	.0	0.0	4.2	6.6
SSW	.2	.2	.3	.1	.2	.1	.0	.0	.0	.0	.0	.0	0.0	1.1	5.9
SW	.1	1.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	0.0	1.4	5.7
WSW	.3	.6	.4	.3	.0	.1	.0	.0	.0	.0	.0	.0	0.0	1.8	7.8
W	.8	.8	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	0.0	3.4	7.3
NNW	.3	.6	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	0.0	1.9	7.9
NW	.9	.6	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	0.0	2.9	6.8
NNW	1.7	2.6	1.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	0.0	6.1	6.2
VAR	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	0.0	..C	..C
CLM	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	..C	0.0	22.6	..C
ALL	22.9	28.0	15.5	8.4	2.0	.5	.0	.0	.0	.0	.0	.0	0.0	100.0	4.8

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)																TOTAL	MEAN WIND SPEED
	16 PT.	1 - 31	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	%					
N	1.4	2.2	1.9	2.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	
NNE	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	
NE	.3	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	
ENE	.1	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	
E	.2	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	
SE	.6	1.8	1.4	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	
SE	1.6	4.6	4.7	1.1	1.0	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	13.3	
SSE	1.9	4.7	2.8	1.4	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.1	
S	4.6	4.6	1.1	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.3	
SSW	1.7	.7	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	
SW	1.4	.9	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	
WSW	.9	1.1	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	
W	1.7	1.4	.7	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3	
NNW	.9	.8	1.0	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	
NW	2.4	2.6	1.6	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.2	
NNW	2.2	3.4	3.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	
ALL	22.1	30.8	21.1	8.9	3.3	.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	5.8	

TOTAL NO. OF OBS. : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

16 PT. DIR.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL	MEAN		
												1	1	1	
N	.4	2.5	1.0	.6	.4							•0	•0	5.0	7.6
NNE	.0	.1	.1	.3	.1							•0	•0	•6	12.8
NE	.1	.3	.7	.4	.0							•0	•0	1.6	8.7
ENE	.0	.1	.1	.0	.0							•0	•0	•2	6.5
E	.3	.4	.1	.0	.0							•0	•0	•8	4.9
ESE	.3	.4	.4	.2	.0							•0	•0	1.4	6.2
SE	.7	1.6	1.7	1.0	.6							•0	•0	5.7	9.0
SSE	1.3	2.0	1.1	.7	.6							•0	•0	6.1	8.7
S	3.1	3.3	.9	.8	.5							•0	•0	9.0	6.3
SSW	1.9	2.4	.6	.4	.1							•0	•0	5.4	5.4
SW	1.9	1.6	.8	.4	.0							•0	•0	4.7	5.4
WSW	3.1	2.8	1.0	.5	.1							•0	•0	7.6	5.0
W	2.9	5.5	2.5	1.9	.2							•0	•0	13.0	6.3
NNW	.7	3.8	3.0	1.1	.4							•0	•0	9.2	7.8
NW	.2	6.5	5.6	1.5	.0							•0	•0	14.7	7.0
NNW	.9	3.9	3.5	1.1	.1							•0	•0	9.7	7.2
VAR	.0	*0	*0	*0	*0							•0	•0	•0	•0
CLW	0.0	0.0	0.0	0.0	0.0							•0	•0	5.2	0.0
ALL	18.6	37.2	23.7	11.2	3.2							•0	•0	100.0	6.5

TOTAL NO. OF OBS : 958

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55			
N	1.0	1.4	.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.7
NNE	.1	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7
NE	.4	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7
ENE	.2	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9
E	.4	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4
ESE	.0	.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4
SE	.5	.4	.6	.6	.4	.1	.1	.0	.0	.0	.0	.0	.0	6.2
SSE	.4	.6	.8	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	10.6
S	.8	.9	.9	1.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	9.3
SSW	.9	1.0	.6	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0	4.6
SW	.7	1.42	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.5
WSW	.5	1.5	2.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	6.2
W	1.8	4.8	13.1	4.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	4.7
WNW	.4	5.3	5.2	2.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	7.8
NNW	1.0	6.9	5.2	1.7	.1	.2	.0	.0	.0	.0	.0	.0	.0	15.1
NNW	.8	3.5	3.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	10.2	30.9	34.9	14.0	2.7	.7	.1	.0	.0	.0	.0	.0	.0	7.3

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN WIND SPEED	
		1	-3	4	-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56	
N	2.6	2.9	.9	.5	.0	.6	.0	.0	.0	.0	.0	.0	.0	4.9
NNE	1.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3
NE	.7	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5
ENE	.5	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1
E	1.2	1.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3
ESE	.4	1.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5
SE	.9	1.1	.4	.8	.4	.2	.1	.0	.0	.0	.0	.0	.0	4.1
SSE	.6	.5	.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.7
S	1.1	1.2	.7	.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	4.5
SSW	.5	.4	.6	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	8.2
SW	.3	.9	.7	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	8.4
WSW	.4	1.9	.9	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	7.7
W	2.6	5.2	5.9	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3
NNW	.8	3.3	3.0	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	7.1
NN	1.9	4.0	2.2	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	6.7
NNN	2.6	7.1	2.1	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
ALL	18.8	33.2	19.6	8.3	2.0	.9	.1	.0	.0	.0	.0	.0	.0	5.4

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55			
N	4.3	4.7	2.0	.6	.6	.1	.0	.0	.0	.0	.0	4.0	.6	11.7
NNE	1.1	1.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	3.0
NE	1.2	.5	.1	.0	.0	.1	.0	.0	.0	.0	.0	0.0	0.0	4.5
ENE	.2	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	6.1
E	2.0	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	3.4
ESE	1.4	2.3	1.0	.3	.0	.1	.0	.0	.0	.0	.0	0.0	0.0	5.1
SE	1.7	1.8	2.0	.7	.4	.4	.0	.0	.0	.0	.0	0.0	0.0	7.0
SSE	1.0	.6	.7	.5	.4	.0	.0	.0	.0	.0	.0	0.0	0.0	3.3
S	.3	1.9	1.1	.5	.3	.1	.0	.0	.0	.0	.0	0.0	0.0	4.3
SSW	.4	.9	1.0	.3	.2	.0	.0	.0	.0	.0	.0	0.0	0.0	3.0
SSE	.7	.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	6.4
WSW	1.0	.8	.9	.6	.1	.0	.0	.0	.0	.0	.0	0.0	0.0	3.5
W	1.6	3.3	2.5	1.0	.1	.0	.0	.0	.0	.0	.0	0.0	0.0	8.5
NNW	1.0	1.2	2.1	.8	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	5.2
NW	2.1	2.8	1.6	.6	.4	.1	.0	.0	.0	.0	.0	0.0	0.0	7.6
NNW	2.2	3.5	1.7	.7	.2	.0	.0	.0	.0	.0	.0	0.0	0.0	6.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	4.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	20.3
ALL	22.3	28.6	16.1	7.4	2.2	1.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

TOTAL NO. OF OBS : 960

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>56	TOTAL			MEAN WIND SPEED
													1	1	1	
N	2.7	3.5	1.4	.8	.2	.0*	.0	.0	.0	.0	.0	.0	8.6	5.7		
NNE	.9	.9	.4	.1	.0*	.0	.0	.0	.0	.0	.0	.0	2.3	5.1		
NE	.7	.8	.3	.1	.0*	.0	.0	.0	.0	.0	.0	.0	1.9	5.1		
ENE	.4	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.2	4.8		
E	1.8	1.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.0	4.3		
ESE	1.3	2.5	1.1	.5	.0*	.0	.0	.0	.0	.0	.0	.0	5.4	5.9		
SE	1.6	2.6	2.2	1.2	.5	.2	.0*	.0	.0	.0	.0	.0	8.3	7.9		
SSE	1.0	1.4	1.2	.8	.5	.1	.0	.0	.0	.0	.0	.0	5.1	8.5		
S	1.5	1.8	1.0	.8	.3	.1	.0	.0	.0	.0	.0	.0	5.5	7.1		
SSW	.8	.9	.5	.3	.1	.1	.0	.0	.0	.0	.0	.0	2.6	6.9		
SW	.7	1.0	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	2.6	6.4		
WSW	.9	1.2	.8	.4	.1	.0*	.0	.0	.0	.0	.0	.0	3.5	6.8		
W	1.6	3.1	3.6	1.4	.2	.0*	.0	.0	.0	.0	.0	.0	10.1	7.3		
NNW	.7	2.1	2.0	.8	.2	.1	.0	.0	.0	.0	.0	.0	5.7	7.5		
NW	1.4	3.3	2.5	.9	.2	.1	.0	.0	.0	.0	.0	.0	8.3	6.8		
NNW	1.8	3.8	2.2	.7	.2	.0*	.0	.0	.0	.0	.0	.0	8.6	6.2		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0		
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.1	0.0		
ALL	19.7	31.1	20.5	9.2	2.5	.8	.1	.0*	.0	.0	.0	.0	100.0	5.6		

TOTAL NO. OF OBS : 7677

NOTES :  
 \* = PERCENT < .05

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT  
 MONTH : NOV HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=4	>=3	>=2	>=1/2	>=2	>=1	>=1/2	>=1	>=1/4	>=1/4						
UNLIMIT	32.3	53.7	57.2	59.5	60.4	60.7	61.3	61.5	61.7	61.9	61.9	61.9	61.9	61.9	61.9	62.0
>=20000	33.1	56.0	59.5	61.9	62.9	63.1	63.7	63.9	64.1	64.3	64.3	64.3	64.3	64.3	64.3	64.5
>=18000	33.1	56.1	59.6	62.0	63.0	63.2	63.8	64.0	64.2	64.5	64.5	64.5	64.5	64.5	64.5	64.6
>=16000	33.2	56.2	59.7	62.1	63.1	63.3	63.9	64.1	64.3	64.6	64.6	64.6	64.6	64.6	64.6	64.7
>=14000	33.8	57.6	61.2	63.7	64.7	64.9	65.5	65.7	65.9	66.1	66.1	66.1	66.1	66.1	66.1	66.2
>=12000	34.9	59.5	63.1	65.6	66.6	66.8	67.4	67.6	67.8	68.0	68.0	68.0	68.0	68.0	68.0	68.1
>=10000	36.0	61.2	65.1	67.6	68.8	69.0	69.7	69.9	70.1	70.4	70.4	70.4	70.4	70.4	70.4	70.5
>= 9000	36.3	61.6	65.5	68.0	69.2	69.4	70.1	70.4	70.6	70.8	70.8	70.8	70.8	70.8	70.8	70.9
>= 8000	37.1	63.1	67.0	69.5	70.9	71.1	71.8	72.0	72.3	72.5	72.5	72.5	72.5	72.5	72.5	72.6
>= 7000	37.7	64.2	68.1	70.7	72.0	72.3	73.0	73.2	73.4	73.6	73.6	73.6	73.6	73.6	73.6	73.7
>= 6000	38.1	64.9	68.8	71.3	72.7	72.9	73.6	73.8	74.1	74.3	74.3	74.3	74.3	74.3	74.3	74.4
>= 5000	38.7	66.0	69.9	72.5	73.9	74.2	74.9	75.1	75.3	75.5	75.5	75.5	75.5	75.5	75.5	75.6
>= 4500	39.0	66.6	70.5	73.0	74.5	74.7	75.4	75.6	75.8	76.1	76.1	76.1	76.1	76.1	76.1	76.2
>= 4000	39.2	67.2	71.1	73.7	75.2	75.4	76.2	76.4	76.6	76.8	76.8	76.8	76.8	76.8	76.8	76.9
>= 3500	39.9	68.6	72.5	75.1	76.6	76.8	77.5	77.7	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.3
>= 3000	40.2	69.6	73.6	76.6	78.1	78.3	79.0	79.2	79.4	79.6	79.6	79.6	79.6	79.6	79.6	79.7
>= 2500	41.8	71.8	75.8	78.9	80.5	80.7	81.5	81.8	82.0	82.2	82.2	82.2	82.2	82.2	82.2	82.3
>= 2000	43.0	74.5	78.6	81.6	83.3	83.5	84.4	84.6	84.8	85.0	85.0	85.0	85.0	85.0	85.0	85.1
>= 1800	43.5	75.2	79.3	82.4	84.1	84.3	85.1	85.3	85.5	85.8	85.8	85.8	85.8	85.8	85.8	85.9
>= 1500	44.2	77.3	81.5	84.8	86.8	87.0	87.0	87.9	88.1	88.3	88.5	88.5	88.5	88.5	88.5	88.6
>= 1200	45.3	79.9	84.2	87.8	89.2	90.1	90.9	91.1	91.4	91.6	91.6	91.6	91.6	91.6	91.6	91.7
>= 1000	46.0	81.3	86.0	89.7	91.8	92.0	92.9	93.1	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.7
>= 900	46.1	81.6	86.4	90.2	92.4	92.6	93.6	93.8	94.0	94.2	94.2	94.2	94.2	94.2	94.3	-
>= 800	46.1	82.1	86.8	90.8	93.1	93.5	94.4	94.6	94.8	95.0	95.0	95.0	95.0	95.0	95.0	-
>= 700	46.6	83.2	88.1	92.3	94.7	95.0	96.0	96.2	96.4	96.6	96.6	96.6	96.6	96.6	96.7	-
>= 600	46.7	83.5	88.5	92.7	95.3	95.6	96.6	96.8	97.0	97.3	97.3	97.3	97.3	97.3	97.4	-
>= 500	46.8	83.9	88.8	93.1	95.8	96.1	97.2	97.4	97.6	97.8	97.8	97.8	97.8	97.8	97.9	-
>= 400	46.8	84.0	88.9	93.5	96.2	96.5	97.6	97.8	98.0	98.2	98.3	98.3	98.3	98.3	98.4	-
>= 300	46.8	84.0	88.9	93.5	96.5	96.8	98.1	98.3	98.5	98.9	99.1	99.1	99.1	99.1	99.2	-
>= 200	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.3	99.4	99.4	99.4	99.5	-
>= 100	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.5	99.6	99.6	99.6	99.7	-
>= 0	46.8	84.0	88.9	93.5	96.5	96.8	98.2	98.4	98.6	99.1	99.5	99.6	99.6	99.6	99.8	100.0

TOTAL NO. OF QHS : 948

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=3/4	>=5/8	>=1/2	>=1/4	>=1	>=3/4	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4									
UNLIMIT	29.2	50.7	53.7	56.0	57.8	58.1	59.0	59.1	59.1	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
>=20000	29.7	51.8	55.1	57.4	59.2	59.5	60.4	60.5	60.5	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
>=18000	29.7	52.1	55.3	57.6	59.4	59.7	60.6	60.7	60.7	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
>=16000	29.9	52.3	55.5	57.8	59.6	59.9	60.8	60.9	60.9	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
>=14000	30.4	53.0	56.3	58.6	60.4	60.7	61.5	61.6	61.6	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
>=12000	31.1	54.3	57.8	60.3	62.0	62.4	63.2	63.3	63.3	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
>=10000	32.2	55.9	59.7	62.3	64.1	64.5	65.3	65.5	65.5	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
>=9000	32.3	56.3	60.0	62.6	64.5	64.8	65.6	65.8	65.8	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
>=8000	33.9	58.7	62.6	65.2	67.2	67.5	68.3	68.6	68.6	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
>=7000	34.2	59.1	63.0	65.6	67.6	67.9	68.8	69.0	69.0	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
>=6000	34.7	59.8	63.7	66.4	68.3	68.7	69.5	69.7	69.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
>=5000	35.4	61.0	64.9	67.5	69.5	69.8	70.7	70.9	70.9	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
>=4500	35.5	61.5	65.1	68.1	70.1	70.5	71.3	71.5	71.5	71.5	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
>=4000	36.1	62.5	66.5	69.3	71.3	71.6	72.5	72.7	72.7	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=3500	36.5	63.3	67.3	70.3	72.3	72.7	73.5	73.7	73.7	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
>=3000	37.3	65.1	69.1	72.1	74.1	74.4	75.4	75.6	75.6	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
>=2500	37.9	66.4	70.3	73.5	75.5	75.8	76.8	77.0	77.0	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
>=2000	38.9	69.1	73.1	76.2	78.4	78.9	79.9	80.2	80.2	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
>=1800	39.1	70.1	74.2	77.5	79.7	80.1	81.3	81.6	81.6	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
>=1500	40.3	72.3	76.7	80.5	82.9	83.3	84.5	84.9	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
>=1200	41.4	74.3	78.9	83.2	85.9	86.4	87.4	87.9	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
>=1000	42.0	76.2	80.8	85.2	88.0	88.5	89.0	89.5	89.5	90.0	90.1	90.2	90.5	90.5	90.5	90.5	90.5	90.5	90.5
>=900	42.1	76.7	81.2	85.6	88.6	89.2	90.5	90.9	90.9	91.0	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
>=800	42.1	77.3	81.8	86.5	89.5	90.1	91.5	91.8	91.8	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
>=700	42.2	78.1	82.8	87.5	90.5	91.2	92.7	93.1	93.1	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
>=600	42.3	79.1	83.8	88.6	91.8	92.4	94.0	94.5	94.5	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
>=500	42.3	79.4	84.2	89.3	92.7	93.4	95.1	95.6	95.6	95.9	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
>=400	42.3	79.6	84.6	89.7	93.4	94.1	95.9	96.4	96.4	97.1	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
>=300	42.3	79.6	84.6	89.7	93.6	94.3	96.2	96.7	96.7	97.6	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0
>=200	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	97.7	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=100	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	97.7	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
>=0	42.3	79.6	84.6	89.7	93.7	94.4	96.3	96.8	96.8	97.7	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1

TOTAL NO. OF OBS. : 951

2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4	>=1/8
UNLIMITED	21.8	35.9	40.8	44.7	49.1	50.4	52.1	52.5	52.6	52.8
>=20000	22.0	37.6	42.6	46.6	51.0	52.3	54.0	54.5	55.0	55.0
>=18000	22.1	37.2	43.0	47.1	51.4	52.7	54.4	54.8	55.2	55.4
>=16000	22.2	38.0	43.2	47.3	51.7	52.9	54.6	55.1	55.4	55.6
>=14000	22.9	39.5	44.8	49.0	53.4	54.6	56.4	57.0	57.1	55.6
>=12000	23.9	41.4	47.0	51.3	55.7	57.0	58.8	59.3	59.4	57.5
>=10000	24.8	43.0	48.8	53.2	57.7	59.1	60.9	61.4	61.6	59.9
>=9000	24.9	43.2	49.0	53.5	57.9	59.3	61.1	61.7	62.0	62.0
>=8000	26.0	45.5	51.2	55.8	60.4	61.9	63.7	64.2	64.5	64.7
>=7000	26.3	46.2	52.0	56.7	61.2	62.7	64.5	65.1	65.2	64.7
>=6000	26.5	46.4	52.2	56.9	61.4	62.9	64.7	65.3	65.4	65.6
>=5000	26.9	47.4	53.2	58.0	62.8	64.4	66.2	66.8	66.9	65.8
>=4500	27.3	47.8	53.7	58.5	63.3	64.9	66.7	67.2	67.3	67.0
>=4000	27.5	48.5	54.6	59.4	64.2	65.3	67.6	68.2	68.3	68.7
>=3500	27.9	49.4	55.5	60.3	65.4	67.1	68.8	69.3	69.4	69.9
>=3000	28.9	51.1	57.3	62.2	67.3	68.9	70.9	71.5	71.6	70.9
>=2500	29.8	52.7	59.0	64.1	69.2	70.3	72.8	73.4	73.5	73.9
>=2000	30.9	54.8	61.6	66.8	71.9	73.6	75.7	76.3	76.4	76.8
>=1800	31.0	55.1	61.9	67.2	72.4	74.2	76.4	77.0	77.0	76.8
>=1500	32.2	58.3	65.4	71.2	76.7	78.5	80.6	81.4	81.5	77.4
>=1200	32.6	59.6	67.1	73.3	79.8	80.8	83.1	83.8	83.9	77.4
>=1000	32.7	60.4	68.2	74.3	80.2	82.4	85.0	85.7	86.2	86.5
>=900	32.8	60.9	68.8	75.1	81.0	83.3	85.9	86.7	86.8	87.5
>=800	32.8	61.6	69.6	76.3	82.2	84.6	87.3	86.2	86.3	88.1
>=700	32.9	62.2	69.2	70.4	71.0	73.1	95.5	89.4	89.5	89.1
>=600	33.0	62.4	69.4	70.8	77.6	82.7	86.2	86.7	86.8	89.4
>=500	33.0	62.4	69.5	71.0	78.0	84.2	86.9	90.3	90.4	89.7
>=400	33.0	62.4	71.1	78.2	84.7	87.4	90.9	92.4	93.7	94.4
>=300	33.0	62.4	71.1	78.2	84.9	87.6	91.3	92.5	94.5	95.2
>=200	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.6	95.7	95.7
>=100	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.8	95.0	95.8
>=0	33.0	62.4	71.2	78.3	85.1	87.9	91.5	92.6	95.0	96.6

TOTAL NO. OF OBS : 939

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=3/4	>=1/2	>=5/8	>=1/4	>=1	>=1/4	>=5/16	>=1/8	>=1/16	
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=0.5										
UNLIMIT	19.9	35.9	40.1	45.1	48.6	49.8	51.8	52.4	53.2	53.4	53.5	53.5	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.7
>=20000	21.2	38.6	42.9	48.1	51.7	53.0	55.0	55.7	56.5	56.7	56.8	56.8	56.9	56.9	56.9	56.9	56.9	56.9	56.9	57.0
>=18000	21.2	39.5	43.7	49.1	52.6	54.0	55.9	56.7	57.4	57.6	57.8	57.8	57.9	57.9	57.9	57.9	57.9	57.9	57.9	58.0
>=16000	21.4	39.9	44.2	49.5	53.0	54.4	56.5	57.2	58.0	58.2	58.3	58.3	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.5
>=14000	22.4	41.0	45.2	50.9	54.4	55.8	58.1	58.8	59.6	59.9	60.0	60.0	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.2
>=12000	23.0	42.6	47.5	53.4	57.0	58.4	60.6	61.5	62.2	62.7	62.8	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	63.0
>=10000	23.9	44.4	49.4	55.7	59.5	60.9	63.1	64.0	64.7	65.1	65.2	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.5
>= 9000	24.0	44.6	49.6	55.6	59.8	61.2	63.4	64.3	65.0	65.6	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.8
>= 8000	24.7	46.0	51.0	57.5	61.7	63.1	65.5	66.3	67.1	67.5	67.6	67.6	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.8
>= 7000	24.9	46.5	51.6	58.4	62.6	64.0	66.3	67.2	67.9	68.3	68.4	68.4	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.7
>= 6000	24.9	46.7	51.8	58.7	63.0	64.4	66.7	67.6	68.3	68.8	68.9	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.1
>= 5000	25.0	47.6	52.7	59.8	64.1	65.5	67.8	68.7	69.4	69.8	69.9	69.9	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.2
>= 4500	25.1	47.9	53.0	60.1	64.5	65.9	68.2	69.1	69.8	70.3	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.6
>= 4000	25.3	48.6	53.7	60.9	65.2	66.6	69.0	69.8	70.6	71.0	71.1	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.3	71.3
>= 3500	26.1	49.5	54.7	61.9	66.4	67.8	70.2	71.0	71.8	72.2	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.5
>= 3000	26.8	50.7	56.1	63.5	68.1	69.5	71.9	72.9	73.7	74.1	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.4
>= 2500	27.9	53.1	58.9	66.3	71.0	72.4	74.6	75.8	76.6	77.0	77.1	77.1	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.3
>= 2000	30.1	56.6	62.5	70.1	74.9	76.1	78.5	79.6	80.3	80.7	80.9	80.9	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.1
>= 1800	30.4	57.6	63.6	71.2	75.0	77.3	79.7	80.7	81.5	81.9	82.0	82.0	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.2
>= 1500	30.7	59.4	66.1	74.3	79.3	80.7	83.6	84.8	85.6	86.2	86.3	86.3	86.4	86.4	86.4	86.4	86.4	86.4	86.5	86.5
>= 1200	31.0	60.7	67.6	76.5	82.0	82.9	86.6	87.9	88.7	89.3	89.4	89.4	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.6
>= 1000	31.1	61.4	68.2	77.3	83.2	84.9	87.9	89.3	90.1	90.7	90.8	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	91.0
>= 900	31.1	61.5	68.6	77.8	83.6	85.5	88.8	90.3	91.0	91.9	92.0	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.2
>= 800	31.2	62.0	69.1	78.6	84.6	86.5	89.6	91.3	92.1	92.9	93.0	93.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.3
>= 700	31.2	62.1	69.2	78.8	84.8	86.7	90.2	91.7	92.4	93.4	93.5	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.7
>= 600	31.2	62.1	69.3	79.0	85.2	87.4	91.0	92.9	93.7	94.7	94.8	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	95.0
>= 500	31.2	62.2	69.4	79.1	85.6	97.6	91.4	93.6	94.3	95.5	95.6	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.8
>= 400	31.2	62.2	69.4	79.1	85.7	87.8	91.9	94.1	94.9	96.4	96.6	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.9
>= 300	31.2	62.2	69.4	79.1	85.8	88.0	92.3	94.8	95.4	96.7	97.3	97.3	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.1
>= 200	31.2	62.2	69.4	79.1	85.8	88.0	92.3	94.8	95.4	97.5	98.0	98.0	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.9
>= 100	31.2	62.2	69.4	79.1	85.8	88.0	92.3	94.8	95.5	97.5	98.0	98.0	98.7	98.7	98.7	98.7	98.7	98.7	98.7	99.4
>= 0	31.2	62.2	69.4	79.1	85.8	88.0	92.3	94.8	95.5	97.5	98.0	98.0	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.9

TOTAL NO. OF OGS : 935

2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4						
UNLIMIT	23.4	42.0	47.6	52.5	57.0	58.2	60.1	60.5	60.7	61.0	61.0	61.2	61.3	61.4	61.5	
>=20000	24.6	44.9	50.8	56.1	60.9	62.0	64.1	64.5	64.7	64.9	64.9	65.1	65.2	65.3	65.5	
>=18000	24.9	46.0	52.0	57.3	62.0	63.2	65.2	65.7	65.9	66.1	66.1	66.3	66.4	66.5	66.6	
>=16000	24.9	46.2	52.2	57.6	62.7	63.9	66.0	66.4	66.6	66.8	66.8	67.1	67.2	67.3	67.4	
>=14000	25.5	47.6	53.6	59.5	64.9	66.2	68.3	68.9	69.1	69.3	69.3	69.5	69.6	69.7	69.8	
>=12000	26.0	49.0	55.3	61.4	66.8	68.1	70.5	71.0	71.2	71.4	71.4	71.7	71.8	71.9	72.0	
>=10000	27.0	51.1	57.6	63.7	69.4	70.7	73.0	73.6	73.8	74.0	74.0	74.2	74.4	74.5	74.5	
>= 9000	27.1	51.3	57.9	64.1	69.7	71.0	73.4	73.9	74.1	74.3	74.3	74.5	74.7	74.8	74.9	
>= 8000	28.0	53.0	59.8	66.1	72.0	73.3	75.7	76.4	76.6	76.8	76.8	77.0	77.1	77.2	77.2	
>= 7000	28.1	53.5	60.2	66.5	72.5	73.8	76.4	77.0	77.2	77.4	77.4	77.6	77.6	77.7	78.0	
>= 6000	28.1	53.6	60.3	66.6	72.6	73.9	76.5	77.1	77.3	77.5	77.5	77.8	77.9	78.0	78.1	
>= 5000	28.2	54.0	60.7	67.1	73.0	74.3	76.9	77.5	77.8	78.0	78.0	78.2	78.3	78.4	78.5	
>= 4500	28.7	54.7	61.5	67.8	73.8	75.2	78.8	79.4	79.8	79.8	79.8	79.9	79.9	79.9	79.9	
>= 4000	29.0	55.4	62.0	68.6	74.7	76.0	78.6	79.3	79.9	79.9	79.9	80.0	80.1	80.1	80.2	
>= 3500	29.3	56.4	63.3	69.7	75.8	77.2	79.8	80.4	80.6	80.9	80.9	81.1	81.2	81.3	81.4	
>= 3000	30.4	58.0	65.1	72.0	78.1	79.6	82.1	82.8	83.0	83.2	83.2	83.4	83.5	83.6	83.7	
>= 2500	31.6	60.3	67.6	74.4	80.5	82.0	84.6	85.2	85.5	85.7	85.7	85.9	86.0	86.1	86.2	
>= 2000	33.2	63.5	71.1	78.1	84.4	86.0	88.6	89.3	89.5	89.7	89.7	89.9	90.1	90.2	90.3	
>= 1800	33.4	64.0	71.6	78.5	65.0	86.7	89.3	90.1	90.3	90.5	90.5	90.5	90.7	90.8	90.9	
>= 1500	34.0	65.6	73.4	80.6	87.6	89.3	91.9	92.6	92.8	93.2	93.2	93.4	93.5	93.6	93.7	
>= 1200	34.1	66.8	74.8	82.2	89.3	91.0	93.8	94.7	94.9	95.2	95.2	95.4	95.5	95.6	95.7	
>= 1000	34.2	67.4	75.4	83.0	90.4	92.1	94.9	95.7	95.9	96.4	96.4	96.6	96.7	96.8	96.9	
>= 900	34.2	67.6	75.7	83.3	90.7	92.4	95.2	96.0	96.3	96.9	96.9	97.1	97.2	97.3	97.4	
>= 800	34.2	67.7	75.9	83.5	90.9	92.6	95.4	96.3	96.5	97.1	97.1	97.3	97.4	97.5	97.6	
>= 700	34.2	67.7	75.9	83.5	90.9	92.7	95.6	96.6	96.8	97.4	97.4	97.6	97.8	97.9	98.0	
>= 600	34.2	67.8	76.0	84.0	91.3	93.3	96.1	97.1	97.3	98.2	98.2	98.4	98.5	98.6	98.7	
>= 500	34.2	67.8	76.1	84.1	91.4	93.4	96.3	97.3	97.5	98.3	98.3	98.5	98.8	98.9	99.0	
>= 400	34.2	67.8	76.1	84.1	91.4	93.4	96.4	97.6	97.9	98.7	98.7	99.0	99.3	99.4	99.5	
>= 300	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9	98.9	99.1	99.6	99.7	99.8	
>= 200	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9	98.9	99.1	99.6	99.7	99.8	
>= 100	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9	98.9	99.1	99.6	99.7	99.8	
>= 0	34.2	67.8	76.1	84.1	91.6	93.5	96.5	97.9	98.1	98.9	98.9	99.1	99.6	99.7	99.8	

TOTAL NO. OF OBS : 935

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)							>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2						
UNLIMIT	28.2	49.9	55.4	58.9	60.5	60.9	61.5	61.5	61.5	61.5	61.5	61.5	61.5
>=20000	29.3	53.0	58.7	62.5	64.2	64.6	65.3	65.3	65.3	65.3	65.3	65.3	65.3
>=18000	29.4	53.8	59.6	63.0	65.2	65.6	66.3	66.3	66.3	66.3	66.3	66.3	66.3
>=16000	29.5	53.9	59.7	63.6	65.4	65.8	66.5	66.5	66.5	66.5	66.5	66.5	66.5
>=14000	30.1	55.5	61.5	65.8	67.8	68.2	69.0	69.0	69.0	69.0	69.0	69.0	69.0
>=12000	31.1	57.3	63.5	67.9	70.1	70.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
>=10000	32.2	59.6	65.8	70.5	72.8	73.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
>= 9000	32.6	60.1	66.5	71.1	73.4	73.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9
>= 8000	33.4	62.5	68.9	73.8	76.1	76.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
>= 7000	33.7	63.4	69.7	74.7	77.0	77.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7
>= 6000	33.9	63.6	69.9	75.0	77.3	77.9	79.1	79.1	79.1	79.1	79.1	79.1	79.1
>= 5000	34.3	64.5	70.9	76.1	78.4	79.0	80.1	80.2	80.2	80.2	80.2	80.2	80.2
>= 4500	34.6	65.5	72.1	77.3	79.6	80.2	81.3	81.4	81.4	81.4	81.4	81.4	81.4
>= 4000	35.0	66.3	72.9	78.1	80.3	81.0	82.1	82.2	82.2	82.2	82.2	82.2	82.2
>= 3500	35.8	67.5	74.1	79.2	81.5	82.2	83.2	83.4	83.4	83.4	83.4	83.4	83.4
>= 3000	36.4	68.9	75.6	80.9	83.2	83.9	85.0	85.1	85.1	85.1	85.1	85.1	85.1
>= 2500	37.5	71.2	78.1	83.5	86.1	86.7	87.8	87.9	87.9	87.9	87.9	87.9	87.9
>= 2000	38.7	73.3	80.1	85.7	88.4	89.1	90.2	90.3	90.3	90.3	90.3	90.3	90.3
>= 1800	39.2	75.0	82.5	88.5	91.2	92.3	93.5	93.6	93.6	93.6	93.6	93.6	93.6
>= 1500	39.6	76.1	83.9	90.2	93.1	94.2	95.6	95.9	95.9	96.1	96.1	96.1	96.1
>= 1200	39.8	76.5	84.6	91.1	94.2	95.2	97.0	97.3	97.5	97.6	97.6	97.6	97.6
>= 1000	39.9	76.5	84.6	91.1	94.3	95.4	97.1	97.4	97.6	97.7	97.8	97.8	97.8
>= 900	40.0	76.5	84.6	91.1	94.4	95.5	97.2	97.5	97.7	97.8	97.9	97.9	97.9
>= 800	39.6	76.5	84.8	91.2	94.4	95.5	97.4	97.8	98.1	98.2	98.3	98.3	98.3
>= 700	39.6	76.6	84.9	91.5	94.6	95.7	97.4	97.8	98.1	98.2	98.3	98.3	98.3
>= 600	39.6	76.8	85.0	91.7	95.0	96.2	97.9	98.4	98.7	98.8	98.9	98.9	98.9
>= 500	39.6	76.8	85.1	91.8	95.2	96.4	98.4	98.8	99.5	99.6	99.6	99.6	99.6
>= 400	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	99.0	99.6	99.6	99.6	99.6
>= 300	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	99.0	99.6	99.6	99.6	99.6
>= 200	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	99.0	99.6	99.6	99.6	99.6
>= 100	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	99.0	99.6	99.6	99.6	99.6
>= 0	39.6	76.9	85.2	91.9	95.4	96.5	98.5	98.9	99.0	99.6	99.6	99.6	99.6

TOTAL NO. OF OBS : 925

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0				
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4					
UNLIMIT	38.3	61.0	62.7	63.7	54.6	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
>=20000	39.3	63.7	65.6	66.7	67.5	67.5	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
>=18000	39.5	64.5	66.4	67.4	68.3	68.3	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
>=16000	39.6	64.6	66.6	67.7	68.5	68.5	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
>=14000	40.3	66.2	68.1	69.6	70.5	70.5	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
>=12000	41.1	68.2	70.2	71.7	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
>=10000	42.1	70.8	72.9	74.4	75.5	75.6	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
>=9000	42.3	71.0	73.2	74.6	75.7	75.8	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
>=8000	43.3	73.3	75.4	77.4	78.0	78.0	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
>=7000	44.0	74.5	76.6	78.2	79.3	79.5	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
>=6000	44.1	74.8	77.0	78.5	79.6	79.8	80.0	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1
>=5000	45.1	76.4	78.6	80.2	81.3	81.5	81.5	81.5	81.6	81.6	81.6	81.6	81.6	81.6	81.6
>=4500	45.5	77.2	79.5	81.1	82.1	82.3	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
>=4000	45.7	77.6	79.9	81.5	82.6	82.9	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
>=3500	46.2	78.2	81.2	82.8	83.8	84.1	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
>=3000	47.3	80.4	82.8	84.4	85.4	85.7	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
>=2500	47.9	82.3	84.8	86.5	87.5	87.8	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
>=2000	49.0	84.8	87.4	89.2	90.3	90.6	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
>=1800	49.4	85.7	88.4	90.3	91.3	91.6	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
>=1500	49.8	87.0	90.1	92.2	93.3	93.7	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
>=1200	50.3	88.4	91.5	92.9	95.0	95.3	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
>=1000	50.4	89.2	92.8	95.3	96.5	96.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
>=900	50.4	89.6	93.2	95.8	96.9	97.4	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
>=800	50.4	90.0	93.6	96.1	97.3	97.7	97.9	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1
>=700	50.4	90.3	93.9	96.4	97.6	98.0	98.3	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5
>=600	50.4	90.5	94.2	96.7	98.1	98.6	98.9	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2
>=500	50.4	90.5	94.2	96.8	98.4	98.8	99.3	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6
>=400	50.4	90.5	94.2	96.9	99.0	99.5	99.6	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9
>=300	50.4	90.5	94.2	96.9	99.6	99.6	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
>=200	50.4	90.5	94.2	96.9	99.6	99.6	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
>=100	50.4	90.5	94.2	96.9	99.6	99.6	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
>=0	50.4	90.5	94.2	96.9	99.6	99.6	99.6	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 946

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0			
	>=10	>=6	>=5	>=4	>=3	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	38.5	60.6	62.8	63.9	64.8	65.0	65.3	65.3	65.3	65.3	65.4	65.4	65.4	65.4
>=20000	39.4	63.1	65.8	66.9	67.9	68.1	68.3	68.3	68.3	68.3	68.4	68.4	68.4	68.4
>=18000	39.5	63.5	66.1	67.3	68.2	68.4	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6
>=16000	39.7	63.7	66.3	67.5	68.4	68.6	68.9	68.9	68.9	68.9	69.0	69.0	69.0	69.0
>=14000	40.5	65.4	68.1	69.5	70.4	70.7	70.9	70.9	70.9	70.9	71.0	71.0	71.0	71.0
>=12000	41.0	66.5	69.6	71.1	72.0	72.4	72.6	72.6	72.6	72.6	72.7	72.7	72.7	72.7
>=10000	41.7	68.2	71.4	73.0	73.9	74.3	74.5	74.5	74.5	74.5	74.6	74.6	74.6	74.6
>=9000	41.9	68.9	72.0	73.6	74.6	74.9	75.1	75.1	75.1	75.1	75.2	75.2	75.2	75.2
>=8000	42.7	71.0	74.2	75.7	76.8	77.1	77.3	77.3	77.3	77.3	77.4	77.4	77.4	77.4
>=7000	43.1	71.5	74.7	76.3	77.3	77.6	77.9	77.9	77.9	77.9	78.0	78.0	78.0	78.0
>=6000	43.1	71.6	74.8	76.4	77.4	77.8	78.0	78.0	78.0	78.0	78.1	78.1	78.1	78.1
>=5000	44.2	73.2	76.4	78.1	79.2	79.6	79.8	79.8	79.8	79.8	79.9	79.9	79.9	79.9
>=4500	44.6	73.9	77.1	78.8	80.0	80.3	80.5	80.5	80.5	80.5	80.5	80.6	80.6	80.6
>=4000	44.9	75.1	78.3	80.1	81.3	81.6	81.8	81.8	81.8	81.8	81.8	81.9	81.9	81.9
>=3500	45.6	76.2	79.4	81.3	82.5	82.8	83.1	83.1	83.1	83.1	83.2	83.2	83.2	83.2
>=3000	46.2	78.0	81.3	83.4	84.7	85.1	85.3	85.3	85.3	85.3	85.4	85.4	85.4	85.4
>=2500	47.2	79.4	82.8	85.0	86.4	86.8	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1
>=2000	48.2	81.3	84.6	86.9	88.3	88.7	88.9	88.9	88.9	88.9	89.0	89.0	89.0	89.0
>=1800	48.4	82.2	85.7	87.9	89.4	89.7	89.9	89.9	89.9	89.9	90.0	90.0	90.0	90.0
>=1500	49.3	84.4	88.0	90.5	92.2	92.5	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8
>=1200	49.8	85.8	89.6	92.3	94.0	94.3	94.5	94.5	94.5	94.5	94.6	94.6	94.6	94.6
>=1000	50.3	87.4	91.2	93.9	95.7	96.0	96.2	96.2	96.2	96.2	96.3	96.3	96.3	96.3
>=900	50.4	88.0	91.8	94.5	96.3	96.6	96.8	96.8	96.8	96.8	96.9	96.9	96.9	96.9
>=800	50.4	88.2	92.3	95.0	96.8	97.2	97.6	97.6	97.6	97.6	97.7	97.7	97.7	97.7
>=700	50.4	88.3	92.4	95.1	96.9	97.4	97.7	97.7	97.7	97.7	97.8	97.8	97.8	97.8
>=600	50.6	88.9	92.9	95.8	97.6	98.1	98.6	98.7	98.7	98.7	98.8	98.8	98.8	98.8
>=500	50.6	89.0	93.0	96.1	97.9	98.4	98.9	99.0	99.0	99.0	99.2	99.2	99.2	99.2
>=400	50.6	89.0	93.1	96.3	98.2	98.7	99.4	99.5	99.5	99.5	99.6	99.6	99.6	99.6
>=300	50.6	89.0	93.1	96.3	98.3	98.8	99.5	99.6	99.6	99.7	99.7	99.8	99.8	99.8
>=200	50.6	89.0	93.1	96.3	98.3	98.8	99.5	99.6	99.6	99.7	99.9	100.0	100.0	100.0
>=100	50.6	89.0	93.1	96.3	98.3	98.8	99.7	99.8	99.8	99.9	100.0	100.0	100.0	100.0
>=0	50.6	89.0	93.1	96.3	98.3	98.8	99.7	99.8	99.8	99.9	100.0	100.0	100.0	100.0

TOTAL NO. OF OBS : 944

## 2 - CEILING VS VISIBILITY

0233239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)								
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4
UNLIMITED	48.8	52.6	55.6	57.9	58.5	59.5	59.7	60.0	60.0
>=20000	29.0	51.1	55.2	58.3	60.7	61.3	62.3	62.6	62.7
>=18000	29.2	51.7	55.7	58.9	61.3	61.9	62.9	63.2	63.4
>=16000	30.1	51.9	55.9	59.2	61.6	62.2	63.2	63.5	63.7
>=14000	30.7	53.2	57.4	60.8	63.3	64.0	65.1	65.3	65.5
>=12000	31.6	54.9	59.3	62.8	65.4	66.0	67.2	67.5	67.6
>=10000	32.5	56.8	61.4	65.1	67.7	68.4	69.6	70.0	70.2
>= 9000	32.7	57.2	61.7	65.4	68.1	68.8	70.0	70.3	70.4
>= 8000	33.7	59.2	63.8	67.6	70.4	71.1	72.3	72.6	72.9
>= 7000	34.0	59.9	64.5	68.4	71.0	71.9	73.1	73.5	73.8
>= 6000	34.2	60.2	64.8	68.7	71.6	72.3	73.5	73.8	74.0
>= 5000	34.6	61.3	66.0	69.9	72.8	73.5	74.8	75.1	75.4
>= 4500	35.1	61.9	66.6	70.6	73.5	74.2	75.5	75.8	76.0
>= 4000	35.4	62.7	67.4	71.4	74.3	75.1	76.3	76.7	77.0
>= 3500	35.9	63.7	68.5	72.6	75.6	76.4	77.5	78.2	78.8
>= 3000	36.7	65.3	70.1	74.4	77.4	78.2	79.4	79.8	80.0
>= 2500	37.7	67.2	72.2	76.5	79.6	80.4	81.7	82.0	82.3
>= 2000	39.0	69.8	74.9	79.3	82.5	83.3	84.6	85.0	85.3
>= 1800	39.3	70.5	75.7	80.2	83.3	84.2	85.5	85.9	86.1
>= 1500	40.0	72.4	78.0	82.9	86.2	87.2	88.6	89.0	89.4
>= 1200	40.5	74.0	79.7	84.2	88.5	89.4	90.2	91.4	91.8
>= 1000	40.8	75.0	80.9	86.2	90.0	91.0	92.6	93.1	93.5
>= 900	40.9	75.4	81.3	86.7	90.5	91.5	93.7	95.2	94.2
>= 800	40.9	75.7	81.8	87.3	91.1	92.2	93.9	94.4	94.6
>= 700	41.0	76.1	82.2	87.8	91.7	92.8	94.6	95.1	95.0
>= 600	41.0	76.4	82.6	88.3	92.3	93.5	95.3	95.6	95.7
>= 500	41.1	76.5	82.6	88.6	92.7	93.9	95.8	96.1	96.7
>= 400	41.1	76.6	82.9	88.7	93.0	94.2	96.3	97.0	97.2
>= 300	41.1	76.6	82.9	88.7	93.1	94.4	96.5	97.3	97.5
>= 200	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6
>= 100	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6
>= 0	41.1	76.6	82.9	88.7	93.1	94.4	96.6	97.4	97.6

TOTAL NO. OF OBS : 7523

## 1 - SURFACE WINDS

02339 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC HOUR : 0100 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1	3	4	-	6	7-10	11-16	17-21	22-27	28-33			
N	3.5	5.4	3.3	6	.4									
NNE	.5	1.1	.2	.1	.2									
ENE	.5	.5	.6	.2	.0									
NE	.9	.7	.0	.2	.0									
E	2.4	2.0	.3	.3	.0									
ESE	2.2	3.5	1.2	.6	.0									
SE	2.5	4.2	2.7	1.7	.1									
SSE	.6	.9	.9	1.1	.2									
S	1.2	.9	.8	1.0	.2									
SSW	.5	.6	.3	.2	.0									
SSE	.0	.5	.2	.3	.0									
SW	.2	.3	.4	.5	.0									
W	.3	.6	.4	.5	.2									
NNW	.2	.9	.6	.5	.1									
NN	1.5	3.2	1.9	.3	.0									
NNW	2.4	4.9	2.2	.5	.2									
VAR	.0	.0	.0	.0	.0									
CLH	.0	.0	.0	.0	.0									
All	19.6	30.4	16.6	8.7	1.6	.9	.2	.1	.0	.0	.0	100.0	5.1	

TOTAL NO. OF OBS. : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)										>56 1	TOTAL 1	MEAN WIND SPEED
	16 PT.	1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55		
N	3.3	4.1	3.0	.9	.1	.1	.0	.0	.0	.0	.0	11.6	6.0
NNE	1.6	1.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	3.5	3.9
NE	.8	1.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.4	4.8
ENE	.7	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	1.2	4.3
E	3.3	2.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	6.4	4.0
ESE	2.0	2.8	1.5	.5	.2	.0	.0	.0	.0	.0	.0	7.1	5.7
SE	1.1	4.7	2.6	1.4	.3	.3	.1	.0	.0	.0	.0	10.6	7.8
SSE	.5	1.6	1.4	1.0	.8	.1	.0	.0	.0	.0	.0	5.4	9.5
S	.8	1.1	1.1	.5	.1	.0	.0	.1	.0	.0	.0	3.7	8.1
SSW	.7	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	1.0	5.6
S	.1	.5	.4	.5	.0	.0	.0	.0	.0	.0	.0	1.5	2.1
WSW	.2	.4	.0	.1	.2	.2	.0	.0	.0	.0	.0	10.7	
W	.3	.7	.3	.5	.0	.0	.0	.0	.0	.0	.0	1.8	7.4
NNW	.6	.6	.6	.5	.0	.0	.0	.0	.0	.0	.0	2.3	7.1
NW	1.2	2.2	1.8	.5	.0	.0	.0	.0	.0	.0	.0	5.7	6.2
NNN	1.4	3.2	2.9	1.1	.2	.0	.0	.0	.0	.0	.0	8.9	6.9
VAR	.4C	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.7	0.0
ALL	18.8	27.3	17.1	8.3	1.9	.7	.1	.0	.0	.0	.0	100.0	4.9

TOTAL NO. OF OBS : 992

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC HOUR : 0700 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1 - 31	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	>=56	TOTAL	MEAN	
													%	WIND	SPEED
N	3.1	4.0	2.8	.6	.2	.0	.0	.0	.0	.0	.0	.0	10.8	5.7	
NNE	1.8	1.3	.3	.1	.2	.1	.0	.0	.0	.0	.0	.0	3.8	5.1	
NE	.6	.6	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	1.7	6.1	
ENE	1.8	1.2	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	3.7	4.2	
E	3.4	2.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	6.8	9.0	
ESE	1.8	3.6	1.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	7.5	5.7	
SE	2.2	3.6	3.1	1.6	.6	.2	.1	.0	.0	.0	.0	.0	11.5	7.6	
SSE	2.3	2.3	1.5	1.4	.3	.3	.1	.0	.0	.0	.0	.0	8.3	7.9	
S	1.3	1.0	.4	.6	.1	.5	.0	.0	.0	.0	.0	.0	3.9	6.6	
SSH	.7	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	5.2	
SN	.0	.2	.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.2	9.1	
S	.3	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.6	8.8	
SW	.2	.6	.5	.7	.0	.1	.0	.0	.0	.0	.0	.0	2.1	9.3	
WNW	.8	.5	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.4	7.3	
NNW	1.7	1.9	1.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	5.3	5.6	
NNW	.8	3.6	1.8	1.0	.2	.0	.0	.0	.0	.0	.0	.0	7.5	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0	
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.3	0.0	
ALL	23.0	27.8	16.0	8.4	2.0	1.3	.2	.0	.0	.0	.0	.0	100.0	5.1	

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										TOTAL	MEAN
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55		
N	2.0	3.0	1.7	1.0	.4	.1	.1	.0	.0	.0	.0	8.4	7.3
NNE	.5	.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	2.0	6.0
NE	.3	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.5	6.2
ENE	.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	1.2	4.7
E	1.2	1.5	.7	.4	.4	.0	.0	.0	.0	.0	.0	3.4	3.7
ESE	1.0	1.8	1.5	.5	.2	.0	.0	.0	.0	.0	.0	5.0	6.8
SE	2.0	3.9	3.5	1.9	.7	.0	.0	.1	.0	.0	.0	12.2	8.0
SSE	2.6	4.2	2.7	.9	.1	.2	.0	.0	.0	.0	.0	11.5	7.2
S	4.9	3.6	.8	.6	.4	.2	.0	.0	.0	.0	.0	10.6	5.3
SSE	.6	.2	.8	.1	.0	.1	.0	.0	.0	.0	.0	1.8	7.1
SW	.6	.7	.0	.1	.1	.2	.0	.0	.0	.0	.0	1.7	7.7
WSW	1.0	.5	.2	.4	.0	.0	.0	.0	.0	.0	.0	2.1	5.4
W	1.2	.7	.6	.7	.2	.0	.0	.0	.0	.0	.0	3.4	7.1
NNW	.7	.8	.6	.8	.0	.0	.0	.0	.0	.0	.0	2.9	7.1
NW	1.5	2.8	1.8	.9	.2	.0	.0	.0	.0	.0	.0	7.3	6.7
NNW	2.3	3.5	3.0	.9	.1	.0	.0	.0	.0	.0	.0	10.0	6.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.9	0
ALL	23.1	28.8	18.6	9.1	3.2	.8	.3	.1	.0	.0	.0	100.0	5.6

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT &lt; .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	1	3	4	-	6	7	-10	11	-16	17	-21	22	-27	28	-33	34	-40	41	-47	48	-55	TOTAL		WIND SPEED			
N	1.2	2.0	7	1.6	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.6
NNE	.2	.7	1	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4
NE	.1	.7	2	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9
ENE	.4	.4	5	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3
E	.2	.5	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6
ESE	.3	.5	8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0
SE	.3	2.0	0	1.0	2.1	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	
SSE	1.6	2.2	0	1.0	1.1	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	
S	3.3	5.0	4	1.4	.8	.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7
SSW	2.0	2.0	6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3
S西南	2.2	2.0	3	.2	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8
WSW	1.5	2.3	3	.4	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9
W	1.8	2.6	3	1.3	1.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.2	
WNW	.7	2.4	7	1.7	.8	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0
NNW	1.9	5.8	4	5.4	2.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	
NNW	.9	4.5	8	5.8	1.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	
VAR	.0	.0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.0	.0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
ALL	18.8	36.6	22.4	12.2	2.6	1.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	

TOTAL NO. OF OBS : 992

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	SPEED (KNOTS)					>=56	TOTAL	MEAN
	16 PT.	1 - 31	4 - 6	7-10	11-16			
N	.5	1.6	2.0	.7	.6	.0	.0	.0
NNE	.2	.7	.3	.5	.0	.1	.0	.0
NE	.3	.8	.6	.1	.0	.0	.0	.0
ENE	.3	1.6	.5	.0	.0	.0	.0	.0
E	.1	1.1	.3	.1	.0	.0	.0	.0
ESE	.3	.7	.2	.0	.0	.0	.0	.0
SE	.6	1.0	1.0	.3	.2	.1	.0	.0
SSE	1.4	1.7	.5	1.1	.2	.1	.0	.0
S	2.6	1.9	.7	.9	.4	.3	.0	.0
SSW	1.2	.3	.6	.7	.1	.1	.0	.0
SW	.8	.7	.4	.4	.2	.0	.0	.0
WSW	1.1	1.5	.3	.9	.1	.0	.0	.0
W	2.6	2.2	4.1	2.0	.3	.0	.0	.0
WNW	1.0	4.5	2.6	1.9	.1	.2	.0	.0
NN	1.9	6.2	7.1	1.6	.4	.0	.0	.0
NNW	1.3	6.0	4.3	1.3	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0
ALL	16.3	32.6	25.6	13.6	2.4	.9	.1	.0

TOTAL NO. OF OBS : 991

NOTES :  
 \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	PT.	SPEED (KNOTS)										TOTAL	MEAN				
		1	2	3	4	5	6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	>56		
N	2.9	4.5	1.5	.7	.4	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0	10.1	5.7
NNE	1.1	1.0	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	5.2
NE	1.1	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	3.9
ENE	1.0	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	4.0
E	1.2	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	4.5
ESE	1.0	1.0	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	5.7
SE	1.0	1.4	.9	1.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	8.3
SSE	1.1	1.0	.6	1.0	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	4.3	8.9
S	1.3	1.3	.8	.9	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	4.7	8.0
SSW	.5	1.0	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	6.6
SW	.9	.1	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1.2	5.1
WSW	.8	.9	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	6.4
W	1.2	2.1	1.7	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.2	7.1
NNW	1.3	1.7	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	5.8
NW	1.9	5.0	2.9	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.3	6.5
NNW	2.4	7.5	5.0	1.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.3	6.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0	0.0
CLM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.1	0.0
ALL	21.0	32.0	17.5	8.9	1.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5.2

TOTAL NO. OF OBS : 991

NOTES : \* = PERCENT < .05

## 1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC HOUR : 2200 LST

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)						>=50	TOTAL	MEAN		
		1 - 3	4 - 6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	WIND SPEED
N	3.1	5.4	2.4	1.2	.2	.0	.0	.0	.0	.0	.0	5.9
NNE	1.1	.8	.2	.0	.1	.0	.0	.0	.0	.0	.0	2.4
NE	1.1	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	3.5
ENE	.2	1.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	5.6
E	1.9	2.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	3.8
ESE	2.3	2.5	1.4	.6	.1	.0	.0	.0	.0	.0	.0	5.6
SE	1.5	3.2	1.3	1.2	.6	.0	.0	.0	.0	.0	.0	7.3
SSE	1.3	1.2	1.0	1.4	.2	.0	.0	.0	.0	.0	.0	6.3
S	.6	.9	.8	1.0	.3	.0	.0	.0	.0	.0	.0	3.6
SSW	.4	.6	.3	.2	.0	.1	.0	.0	.0	.0	.0	6.8
SW	.3	.2	.4	.2	.1	.0	.0	.0	.0	.0	.0	7.8
WSW	.2	.3	1.1	.0	.1	.0	.0	.0	.0	.0	.0	6.1
W	.5	1.1	1.3	.3	.1	.0	.0	.0	.0	.0	.0	8.2
WNW	.4	.7	1.0	.7	.0	.0	.0	.0	.0	.0	.0	3.3
NW	1.0	3.3	3.0	.5	.0	.0	.0	.0	.0	.0	.0	7.9
NNW	2.5	6.3	3.5	1.2	.2	.1	.0	.0	.0	.0	.0	6.5
VAR	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
CLH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL	18.6	30.5	18.1	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	5.1

TOTAL NO. OF OBS. :

cc91

NOTES : \* = PERCENT < .05

## I - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD: 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)						>=50	TOTAL	MEAN WIND SPEED
		1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27			
N	2.5	3.9	2.3	.8	.3	.1	.0*	.0	.0	6.4
NNE	.9	1.0	.3	.2	.1	.0	.0	.0	.0	2.5
NE	.6	.6	.3	.1	.0*	.0	.0	.0	.0	5.5
ENE	.7	.9	.3	.1	.0*	.0	.0	.0	.0	1.7
E	1.7	1.8	.4	.1	.0	.0	.0	.0	.0	4.8
ESE	1.4	2.1	1.1	.4	.1	.0*	.0	.0	.0	4.3
SE	1.4	3.0	2.0	1.6	.4	.1	.0*	.0	.0	5.0
SSE	1.4	1.9	1.2	1.1	.4	.2	.1	.0	.0	5.8
S	2.0	2.0	.9	.8	.2	.2	.0*	.0	.0	8.6
SSW	.8	.7	.4	.3	.0*	.0*	.0	.0	.0	7.9
SW	-	.6	.4	.2	.1	.1	.0	.0	.0	6.3
WSW	.7	.8	.4	.3	.1	.0*	.0	.0	.0	8.1
W	1.0	1.3	1.3	.9	.2	.0*	.0	.0	.0	7.0
WNW	.7	1.5	1.1	.8	.1	.0*	.0	.0	.0	4.2
NNW	1.6	3.6	3.2	.9	.1	.0*	.0	.0	.0	7.3
NNN	1.8	4.9	3.6	1.2	.2	.0*	.0	.0	.0	6.6
VAR	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
CLM	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
ALL	19.9	30.8	19.0	9.7	2.2	.9	.2	.1	.0	5.5

NOTES : \* = PERCENT < .05

TOTAL NO. OF OBS : 7933

1 - SURFACE WINDS

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : ANN HOUR : ALL

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION VS SPEED  
 (FROM HOURLY OBSERVATIONS)

DIR.	16 PT.	SPEED (KNOTS)										>=56	TOTAL	MEAN
		1 -	31	4 -	61	7-10	11-16	17-21	22-27	28-33	34-40			
N	1.4	2.0	1.1	.5	.1	.0*	.0*	.0*	.0	.0	.0	.0	5.2	6.2
NNE	.5	.5	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	1.3	5.4
NE	.3	.3	.1	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.9	5.1
ENE	.2	.3	.1	.0*	.0*	.0	.0	.0	.0	.0	.0	.0	.6	4.9
E	.8	.4	.4	.3	.0*	.0*	.0	.0	.0	.0	.0	.0	2.0	4.5
ESE	.7	1.3	.6	.2	.1	.0*	.0*	.0	.0	.0	.0	.0	2.9	5.9
SE	.7	1.3	1.0	.7	.2	.1	.0*	.0*	.0	.0	.0	.0	4.1	8.2
SSE	.6	1.0	.7	.5	.2	.1	.0*	.0*	.0	.0	.0	.0	3.1	8.3
S	1.1	1.6	.9	.6	.2	.1	.0*	.0*	.0	.0	.0	.0	4.6	7.0
SSW	.7	1.2	.8	.4	.1	.0*	.0	.0	.0	.0	.0	.0	3.2	6.7
SW	.9	1.9	2.0	.9	.1	.0*	.0	.0	.0	.0	.0	.0	5.7	7.3
WSW	1.0	2.6	3.6	2.1	.2	.0*	.0*	.0	.0	.0	.0	.0	9.6	8.2
W	1.6	4.8	9.2	8.1	1.3	.2	.0*	.0*	.0	.0	.0	.0	25.2	9.6
WNW	.9	2.5	3.4	2.0	.3	.1	.0*	.0	.0	.0	.0	.0	9.2	8.4
NNW	1.1	2.6	2.3	.8	.1	.0*	.0	.0	.0	.0	.0	.0	7.0	6.9
NNW	1.0	2.4	1.7	.7	.1	.0*	.0	.0	.0	.0	.0	.0	5.9	6.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CLW	0	0	0	0	0	0	0	0	0	0	0	0	9.4	0.0
ALL	13.7	27.3	27.8	17.9	3.0	.7	.1	.0*	.0	.0	.0	.0	100.0	7.1

TOTAL NO. OF OBS : 93483

NOTES : \* = PERCENT < .05

## ? - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC HOUR : 0100 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	>=10	>=6	>=5	>=4	VISIBILITY (STATUTE MILES)						>=1	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
					>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4							
UNLIMIT	23.9	43.8	47.7	52.2	54.9	55.9	57.3	57.7	57.8	57.9	58.1	58.1	58.1	58.1	58.2	58.4	
>=20000	24.6	45.7	49.6	54.0	56.8	57.7	59.2	59.8	59.9	60.0	60.2	60.2	60.2	60.2	60.3	60.5	
>=18000	24.8	46.1	50.0	54.4	57.2	58.1	59.7	60.3	60.4	60.5	60.7	60.7	60.7	60.7	60.8	61.0	
>=16000	24.9	46.2	50.1	54.5	57.3	58.2	59.8	60.4	60.5	60.6	60.8	60.8	60.8	60.8	60.9	61.1	
>=14000	25.3	46.8	50.8	55.4	58.2	59.1	60.7	61.3	61.4	61.6	61.8	61.8	61.8	61.8	62.0	62.1	
>=12000	25.9	47.6	51.8	56.8	59.8	60.8	62.3	62.9	63.0	63.2	63.4	63.4	63.4	63.4	63.6	63.8	
>=10000	26.5	48.6	52.9	57.8	60.9	61.9	63.4	64.1	64.2	64.4	64.6	64.6	64.6	64.6	64.7	64.9	
>=9000	26.8	49.0	53.3	58.2	61.3	62.3	63.9	64.5	64.6	64.9	65.1	65.1	65.1	65.1	65.2	65.4	
>=8000	27.4	50.5	54.9	60.1	63.1	64.2	65.7	66.3	66.4	66.7	66.9	66.9	66.9	66.9	67.0	67.2	
>=7000	28.0	51.2	55.7	60.9	64.0	65.0	66.5	67.1	67.2	67.6	67.8	67.8	67.8	67.8	67.9	68.1	
>=6000	28.1	51.5	56.1	61.2	64.3	65.3	66.8	67.5	67.6	67.9	68.1	68.1	68.1	68.1	68.2	68.4	
>=5000	29.0	53.0	57.5	62.8	66.1	67.1	68.7	69.3	69.4	69.7	69.9	69.9	69.9	69.9	69.9	69.9	
>=4500	29.9	54.3	58.9	64.2	67.5	68.5	70.0	70.6	70.7	71.0	71.3	71.3	71.3	71.3	70.0	70.2	
>=4000	30.4	54.9	59.4	64.6	68.2	69.2	70.7	71.5	71.6	72.1	72.1	72.1	72.1	72.1	72.2	72.4	
>=3500	30.9	56.0	60.6	65.9	69.3	70.3	71.9	72.7	72.8	73.1	73.3	73.3	73.3	73.3	73.4	73.6	
>=3000	31.6	58.4	63.1	68.6	72.0	73.0	74.5	75.4	75.5	75.8	76.0	76.0	76.0	76.0	76.1	76.3	
>=2500	32.2	60.0	64.7	70.1	73.6	74.7	76.4	77.2	77.3	77.6	77.8	77.8	77.8	77.8	77.9	78.1	
>=2000	34.0	63.6	68.7	74.1	77.8	79.0	80.6	81.4	81.5	81.6	82.0	82.0	82.0	82.0	82.1	82.3	
>=1800	34.2	64.4	69.6	75.2	78.9	80.1	81.7	82.5	82.6	83.0	83.2	83.2	83.2	83.2	83.3	83.5	
>=1500	34.8	65.7	71.3	77.0	81.1	82.4	84.1	84.9	85.0	85.3	85.5	85.5	85.5	85.5	85.6	85.8	
>=1200	35.1	66.2	72.5	78.5	83.2	84.5	86.1	87.0	87.1	87.4	87.6	87.6	87.6	87.6	87.7	87.9	
>=1000	35.6	68.2	74.0	80.5	86.4	88.2	89.2	89.3	89.6	89.8	89.8	89.8	89.8	89.8	89.9	90.1	
>=900	35.8	68.7	74.6	81.2	85.9	87.3	89.1	90.1	90.2	90.6	90.8	90.8	90.8	90.8	90.9	91.1	
>=800	36.0	69.3	75.6	82.2	87.1	88.4	90.2	91.3	91.4	91.7	91.9	91.9	91.9	91.9	92.0	92.2	
>=700	36.0	69.7	76.1	82.9	88.0	89.4	91.4	92.6	92.7	93.0	93.2	93.2	93.2	93.2	93.3	93.5	
>=600	36.1	70.0	76.5	83.4	88.9	90.3	92.4	93.6	93.7	94.0	94.3	94.3	94.3	94.3	94.4	94.6	
>=500	36.1	70.1	76.6	83.7	89.3	90.8	92.8	94.1	94.6	94.6	94.8	94.8	94.8	94.8	94.9	95.1	
>=400	36.1	70.1	76.9	84.0	89.7	91.2	93.2	94.7	94.8	95.2	95.4	95.4	95.4	95.4	95.5	95.7	
>=300	36.1	70.2	77.0	84.2	90.0	91.6	93.6	95.2	95.3	95.9	96.4	96.4	96.4	96.4	96.5	96.7	
>=200	36.1	70.2	77.0	84.2	90.0	91.6	93.6	95.3	95.4	96.0	96.5	96.5	96.5	96.5	96.6	96.8	
>=100	36.1	70.2	77.0	84.2	90.0	91.7	93.7	95.4	95.5	96.1	96.6	96.6	96.6	96.6	97.0	97.6	
>=0	36.1	70.2	77.0	84.2	90.0	91.7	93.7	95.4	95.5	96.1	96.6	96.6	96.6	96.6	97.1	97.6	100.0

TOTAL NO. OF OBS : 974

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0400 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=5/8 >=1/2 >=5/16 >=1/4 >=0					
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4	>=0
UNLIMIT	23.4	41.3	45.1	50.4	53.3	54.1	55.2	55.5	55.6	55.6	55.6	55.7	55.8	55.8	56.0	56.0
>=20000	23.8	42.1	45.9	51.2	54.1	54.9	56.0	56.3	56.4	56.4	56.4	56.5	56.5	56.6	56.6	56.8
>=14000	24.0	42.3	46.1	51.4	54.2	55.1	56.1	56.6	56.6	56.6	56.7	56.7	56.8	56.9	57.0	57.1
>=16000	24.1	42.7	46.4	51.7	54.6	55.4	56.6	56.9	56.9	57.0	57.0	57.0	57.1	57.2	57.2	57.4
>=14000	24.3	43.2	47.0	52.6	55.5	56.3	57.6	58.0	58.0	58.1	58.1	58.2	58.2	58.3	58.3	58.5
>=12000	25.3	44.5	48.4	54.1	57.1	58.0	59.2	59.6	59.6	59.7	59.7	59.8	59.8	59.9	59.9	60.1
>=10000	25.9	45.8	49.9	55.7	58.9	59.8	61.0	61.4	61.4	61.5	61.5	61.6	61.6	61.7	61.7	61.9
>= 9000	26.0	46.0	50.2	56.0	59.2	60.1	61.3	61.7	61.7	61.8	61.8	61.9	61.9	62.0	62.0	62.2
>= 8000	26.6	46.2	51.2	57.0	60.3	61.3	62.6	63.0	63.0	63.1	63.1	63.2	63.2	63.3	63.3	63.5
>= 7000	26.8	48.2	52.6	58.4	61.6	62.7	64.0	64.4	64.4	64.6	64.6	64.7	64.7	64.8	64.8	65.0
>= 6000	26.9	48.5	52.9	58.7	61.9	63.0	64.3	64.7	64.7	64.9	64.9	65.0	65.0	65.1	65.1	65.3
>= 5000	27.4	49.3	53.9	59.7	63.0	64.1	65.4	65.8	65.8	66.0	66.0	66.1	66.1	66.2	66.2	66.4
>= 4500	28.1	50.2	54.8	60.6	63.9	65.0	66.3	66.8	66.8	67.0	67.0	67.1	67.1	67.2	67.2	67.4
>= 4000	28.4	50.8	55.4	61.3	64.6	65.7	67.1	67.7	67.7	67.9	67.9	68.0	68.0	68.1	68.1	68.3
>= 3500	28.8	51.5	56.1	62.1	65.4	66.5	68.0	68.5	68.5	68.7	68.7	68.8	68.8	68.9	68.9	69.1
>= 3000	30.4	54.6	59.4	65.6	68.9	70.0	71.4	71.9	71.9	72.1	72.1	72.2	72.2	72.3	72.3	72.6
>= 2500	31.5	56.7	61.9	68.3	71.5	72.8	74.2	74.7	74.7	74.9	74.9	75.0	75.0	75.1	75.1	75.3
>= 2000	32.9	59.5	65.0	71.3	74.7	75.9	77.3	77.9	77.9	78.1	78.1	78.2	78.2	78.3	78.3	78.5
>= 1800	33.3	60.5	66.0	72.3	75.7	76.9	78.4	79.0	79.0	79.2	79.2	79.3	79.3	79.4	79.4	79.6
>= 1500	33.7	62.9	68.6	75.1	78.6	79.9	81.3	81.9	81.9	82.1	82.1	82.2	82.2	82.3	82.3	82.6
>= 1200	33.8	63.6	69.3	76.0	79.8	81.1	82.6	83.2	83.2	83.4	83.4	83.5	83.5	83.6	83.6	83.8
>= 1000	34.3	65.3	71.0	78.1	81.9	83.3	85.2	85.8	85.8	86.0	86.0	86.1	86.1	86.2	86.2	86.4
>= 900	34.4	66.0	71.8	79.1	83.1	84.5	86.5	87.2	87.2	87.6	87.6	87.7	87.7	87.8	87.8	88.0
>= 800	34.4	66.4	72.7	80.0	84.3	85.9	88.0	88.7	88.7	89.0	89.0	89.1	89.1	89.2	89.2	89.4
>= 700	34.5	66.8	73.2	80.5	84.9	86.7	89.1	89.8	89.8	90.1	90.1	90.2	90.2	90.3	90.3	90.5
>= 600	34.5	66.9	73.6	81.1	86.0	88.0	90.6	91.3	91.3	91.7	91.7	91.8	91.8	91.9	91.9	92.1
>= 500	34.5	67.3	74.0	81.7	86.9	89.0	91.7	92.7	92.7	93.4	93.4	93.6	93.6	93.7	93.7	93.9
>= 400	34.5	67.4	74.2	81.9	87.1	89.3	92.3	93.4	93.4	94.2	94.2	94.5	94.5	94.6	94.6	94.8
>= 300	34.5	67.4	74.2	81.9	87.2	89.5	92.7	93.8	93.8	94.8	94.8	95.1	95.1	95.5	95.5	95.8
>= 200	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.1	94.1	95.1	95.1	95.6	95.6	96.2	96.2	96.5
>= 100	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.2	94.2	95.8	95.8	96.5	96.5	96.7	96.7	97.1
>= 0	34.5	67.4	74.2	81.9	87.2	89.5	93.0	94.2	94.2	95.8	95.8	96.5	96.5	96.9	96.9	100.0

TOTAL NO. OF OBS : 980

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 0700 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)						VISIBILITY (STATUTE MILES)					
	>=10	>=6	>=5	>=4	>=3	>=2	>=2	>=1	>=1/2	>=1	>=1/4	>=5/16
UNLIMIT	18.9	33.0	36.8	41.0	45.0	46.5	48.7	49.0	49.2	49.9	49.9	50.1
>=20000	19.3	33.9	37.8	42.0	46.1	47.7	50.1	50.4	50.6	51.3	51.3	51.4
>=18000	19.4	34.2	38.1	42.3	46.5	48.0	50.4	50.7	51.0	51.6	51.6	51.6
>=16000	19.6	34.7	38.4	42.7	46.7	49.4	51.9	52.4	52.6	53.3	53.3	53.4
>=14000	19.9	35.4	39.4	43.7	47.9	51.1	53.5	54.3	54.5	55.3	55.3	55.4
>=12000	21.2	36.8	40.9	45.2	49.4	51.1	53.5	54.3	54.5	55.3	55.3	55.4
>=10000	21.9	37.8	42.1	46.8	51.5	53.1	55.7	56.5	56.7	57.6	57.6	57.7
>=9000	22.0	38.1	42.4	47.1	51.8	53.4	56.0	56.9	57.1	58.0	58.0	58.1
>=8000	22.8	39.7	44.0	48.7	53.5	55.2	57.8	58.9	59.1	59.9	59.9	59.9
>=7000	23.0	40.1	44.4	49.1	54.1	55.7	58.3	59.4	59.6	60.4	60.4	60.5
>=6000	23.1	40.3	44.6	49.3	54.3	55.9	58.5	59.6	59.8	60.6	60.6	60.7
>=5000	23.4	41.5	45.9	50.8	55.7	57.3	59.9	61.0	61.3	62.1	62.1	62.2
>=4500	23.9	42.6	47.2	52.0	56.9	58.6	61.2	62.3	62.5	63.3	63.3	63.4
>=4000	24.6	43.6	48.0	52.8	58.0	59.6	62.3	63.4	63.6	64.4	64.4	64.5
>=3500	25.1	44.5	49.0	53.9	59.1	60.7	63.5	64.6	64.9	65.7	65.7	65.8
>=3000	26.3	46.9	51.5	56.5	61.8	63.4	66.3	67.4	67.6	68.4	68.4	68.6
>=2500	27.6	49.6	54.5	59.6	64.9	66.7	69.6	70.7	70.9	71.7	71.7	71.8
>=2000	29.2	53.3	58.3	63.5	69.3	71.1	74.1	75.2	75.4	76.3	76.4	76.5
>=1800	29.8	54.4	59.3	64.6	70.4	72.3	75.3	76.5	76.7	77.5	77.6	77.7
>=1500	30.2	55.8	60.9	66.7	73.1	74.9	78.4	79.5	79.8	80.6	80.7	80.7
>=1200	30.5	56.7	62.0	68.0	76.5	80.1	81.2	81.4	82.2	82.3	82.3	82.4
>=1000	30.6	57.8	63.3	70.4	77.1	82.6	87.7	89.0	89.2	90.4	90.6	90.8
>=900	30.6	58.0	63.8	71.1	78.1	80.1	83.8	84.9	85.1	86.0	86.1	86.2
>=800	30.6	58.3	64.2	71.7	78.7	80.7	84.5	85.6	85.8	86.8	87.1	87.2
>=700	30.6	58.6	64.6	72.6	80.0	82.2	86.3	87.6	87.8	88.9	89.1	89.2
>=600	30.6	58.8	65.1	73.3	80.9	83.2	87.7	89.0	89.2	90.4	90.6	91.0
>=500	30.6	59.0	65.3	73.8	81.4	83.9	88.4	89.9	90.1	91.4	91.6	91.7
>=400	30.6	59.0	65.3	73.9	81.5	84.0	88.7	90.2	90.4	92.0	92.4	92.5
>=300	30.6	59.0	65.4	74.1	81.8	84.3	89.3	91.0	91.2	92.8	93.4	93.7
>=200	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.1	91.3	93.2	93.9	94.0
>=100	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.2	91.4	93.4	94.1	94.2
>=0	30.6	59.0	65.4	74.1	81.8	84.4	89.4	91.3	91.5	93.5	94.2	94.3

TOTAL NO. OF OBS : 973

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1000 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	18.6	30.7	34.4	39.1	42.4	44.2	46.4	47.7	47.8	48.7
>=20000	19.6	32.7	36.7	41.7	45.4	47.3	50.0	51.4	51.6	52.5
>=18000	19.7	33.0	37.1	42.1	45.9	47.7	50.5	52.0	52.1	52.7
>=16000	19.7	33.0	37.1	42.1	45.9	47.7	50.5	52.0	52.1	53.0
>=14000	19.9	33.9	38.0	43.4	47.5	49.5	52.6	54.1	54.2	55.2
>=12000	20.8	35.5	40.1	45.8	49.9	51.9	55.2	56.8	57.0	57.7
>=10000	21.7	36.7	41.6	47.4	52.0	54.0	57.6	59.3	59.5	60.1
>=9000	21.9	36.9	41.8	47.7	52.3	54.3	57.9	59.7	59.9	60.6
>=8000	22.5	37.9	43.0	49.0	53.6	55.8	59.3	61.3	61.5	62.1
>=7000	22.8	38.4	43.5	49.5	54.2	56.4	59.9	61.9	62.1	62.7
>=6000	23.3	38.9	44.0	50.0	54.8	57.0	60.6	62.5	62.7	63.4
>=5000	23.7	40.6	45.8	51.8	56.6	58.9	62.4	64.4	64.7	65.3
>=4500	24.1	41.4	46.7	52.7	57.7	59.9	63.5	65.5	65.8	66.5
>=4000	24.4	41.7	47.0	53.0	58.1	60.4	64.0	66.1	66.5	67.1
>=3500	24.8	42.9	48.2	54.3	59.5	61.8	65.4	67.6	67.9	68.5
>=3000	25.2	43.8	49.4	55.6	60.9	63.1	67.1	69.4	69.7	70.3
>=2500	25.8	44.9	50.7	57.2	62.7	65.0	69.3	71.5	71.8	72.5
>=2000	26.5	47.3	53.4	60.1	65.9	68.4	72.8	75.1	75.5	76.1
>=1800	26.7	48.0	54.2	61.2	67.1	69.6	73.9	76.2	76.6	77.2
>=1500	27.0	49.5	56.5	63.8	70.1	72.6	77.0	79.7	80.2	80.8
>=1200	27.3	50.8	58.1	65.6	72.0	74.5	79.0	81.7	81.8	82.0
>=1000	27.3	51.7	59.4	67.6	74.4	77.0	81.7	84.5	85.6	86.1
>=900	27.3	51.8	59.6	67.9	74.9	77.5	82.4	85.6	86.1	86.6
>=800	27.3	51.9	59.8	68.4	75.7	78.4	84.0	87.3	86.9	87.4
>=700	27.3	52.1	60.0	68.7	76.3	79.0	84.8	88.5	88.9	89.3
>=600	27.3	52.2	60.1	68.9	76.9	79.6	85.9	89.9	90.4	90.5
>=500	27.3	52.2	60.1	68.9	76.9	79.6	85.9	89.9	91.3	91.8
>=400	27.3	52.2	60.2	69.0	77.0	80.3	86.3	90.4	92.0	92.7
>=300	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.6
>=200	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8
>=100	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8
>=0	27.3	52.2	60.2	69.0	77.3	80.3	87.4	91.7	92.2	93.8

TOTAL NO. OF OBS : 966

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1300 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)								>=3/4	>=5/8	>=1/2	>=5/16	>=1/8	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/4						
UNLIMIT	22.1	35.7	39.9	43.8	50.1	52.8	55.4	56.3	57.1	57.2	57.2	57.4	57.4	57.4
>=20000	22.5	36.9	41.6	46.1	52.5	55.8	59.9	59.9	60.6	60.7	60.7	60.9	60.9	60.9
>=18000	22.7	37.2	41.9	46.4	51.3	56.2	59.4	60.3	61.0	61.2	61.2	61.4	61.4	61.4
>=16000	22.8	37.6	42.3	46.9	53.9	56.9	60.0	60.9	61.7	61.8	61.8	62.0	62.0	62.0
>=14000	23.6	38.6	43.6	48.3	55.4	58.4	61.8	62.8	63.7	63.8	63.8	64.0	64.0	64.0
>=12000	24.0	39.4	44.5	49.8	57.2	60.4	63.8	64.9	64.9	65.8	65.9	65.9	66.1	66.1
>=10000	24.8	40.7	46.0	51.6	59.4	62.8	66.2	67.5	68.5	68.6	68.6	68.8	68.8	68.8
>=9000	41.0	46.3	51.9	59.7	63.4	66.8	68.2	68.2	69.1	69.2	69.2	69.4	69.4	69.4
>=8000	25.5	42.9	48.6	54.7	61.3	65.5	69.1	70.5	71.5	71.6	71.6	71.6	71.6	71.6
>=7000	25.5	42.9	48.6	54.7	62.6	66.4	69.9	71.3	72.4	72.5	72.5	72.7	72.7	72.7
>=6000	25.7	43.7	48.9	55.0	62.9	66.7	70.3	71.6	72.7	72.8	72.8	73.0	73.0	73.0
>=5000	26.0	44.2	49.8	56.0	64.1	67.9	71.5	72.9	73.9	74.0	74.0	74.2	74.2	74.2
>=4500	26.1	44.8	50.9	57.1	65.3	69.1	72.8	74.1	75.2	75.3	75.3	75.5	75.5	75.5
>=4000	26.6	45.8	51.8	58.0	66.3	70.1	73.7	75.1	76.1	76.2	76.2	76.4	76.4	76.4
>=3500	27.1	46.7	52.8	59.0	67.3	71.1	74.8	76.1	77.2	77.3	77.3	77.5	77.5	77.5
>=3000	27.9	48.0	54.0	60.2	68.6	72.7	76.6	78.1	79.2	79.3	79.3	79.5	79.5	79.5
>=2500	29.2	50.3	56.5	62.9	71.7	75.7	79.8	81.4	82.4	82.6	82.6	82.8	82.8	82.8
>=2000	30.2	52.0	58.4	65.4	74.6	78.6	82.9	84.8	85.9	86.1	86.1	86.3	86.3	86.3
>=1800	30.3	52.4	58.8	65.9	75.0	79.2	83.6	85.4	86.5	86.7	86.7	86.9	86.9	86.9
>=1500	30.7	53.8	60.6	67.9	77.3	91.7	86.2	88.1	88.2	89.4	89.4	89.6	89.6	89.6
>=1200	30.9	55.3	62.2	69.9	79.6	84.1	88.6	90.5	90.5	91.6	91.6	91.9	92.1	92.1
>=1000	31.1	55.9	63.1	71.2	81.5	85.9	90.6	92.6	93.9	94.2	94.2	94.5	94.5	94.5
>=900	31.1	55.9	63.1	71.3	81.6	86.0	90.8	92.7	92.8	94.1	94.5	94.7	94.7	94.7
>=800	31.2	56.0	63.5	71.9	82.2	86.6	91.6	93.6	93.7	95.2	95.6	95.8	95.8	95.8
>=700	31.2	56.0	63.7	72.4	82.6	87.0	92.3	94.3	94.6	96.0	96.4	96.5	96.5	96.5
>=600	31.2	56.0	63.7	72.4	82.7	87.1	92.6	94.9	95.1	96.5	97.0	97.1	97.3	97.3
>=500	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.3	95.6	97.5	97.9	98.1	98.3	98.3
>=400	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.6	95.9	98.0	98.5	98.8	99.1	99.1
>=300	31.2	56.0	63.8	72.5	83.0	87.4	93.0	95.6	95.9	98.0	98.5	98.8	99.1	99.1
>=200	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	98.1	99.0	99.5	99.7	99.7
>=100	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	98.1	99.0	99.5	99.7	99.7
>=0	31.2	56.0	63.8	72.5	83.0	87.4	93.1	95.7	96.0	99.0	99.0	99.5	99.5	99.5

TOTAL NO. OF OBS : 955

1000  
900  
800  
700  
600  
500  
400  
300  
200  
100  
0

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1600 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)											
	>=10	>=6	>=5	>=4	>=3	>=2	>=1/2	>=1	>=1/4	>=1/8	>=1/16	>=1/4
UNLIMIT	22.9	39.8	45.0	50.7	55.9	57.6	57.8	57.9	58.0	58.0	58.1	58.1
>=20000	23.8	42.3	48.0	55.0	58.4	60.4	62.1	62.4	62.6	62.7	62.8	62.8
>=18000	23.9	42.4	48.5	55.5	58.9	60.9	62.7	62.9	63.1	63.2	63.3	63.3
>=16000	23.9	42.8	48.7	55.8	59.4	61.4	63.2	63.4	63.6	63.7	63.8	63.8
>=14000	24.6	43.9	49.8	57.3	61.0	63.0	64.8	65.0	65.2	65.3	65.4	65.4
>=12000	24.8	44.5	51.0	58.6	62.7	64.7	66.8	67.0	67.2	67.4	67.7	67.7
>=10000	25.5	45.8	52.7	60.7	64.9	66.9	69.2	69.7	69.9	70.0	70.1	70.1
>= 9000	25.7	46.1	53.0	61.0	65.3	67.3	69.7	70.1	70.3	70.4	70.5	70.5
>= 8000	26.1	47.3	54.4	62.9	67.4	69.5	71.8	72.2	72.4	72.5	72.6	72.6
>= 7000	26.2	48.3	55.5	64.1	68.6	70.7	73.4	73.9	74.1	74.2	74.3	74.3
>= 6000	26.5	48.7	55.9	64.5	69.0	71.2	73.8	74.3	74.5	74.7	74.8	74.8
>= 5000	26.7	49.1	56.3	65.0	69.6	71.7	74.5	75.1	75.3	75.4	75.5	75.5
>= 4500	26.8	50.0	57.1	65.2	66.2	70.7	72.9	75.7	76.5	76.6	76.7	76.7
>= 4000	27.7	51.6	59.3	68.1	72.6	74.8	77.6	78.2	78.4	78.5	78.6	78.6
>= 3500	27.8	52.2	59.9	68.7	73.3	75.4	78.1	78.8	79.0	79.1	79.2	79.2
>= 3000	28.4	53.7	61.7	70.8	75.7	77.8	80.7	81.2	81.4	81.5	81.7	81.7
>= 2500	29.6	55.6	63.7	73.2	78.3	80.8	83.8	84.3	84.5	84.6	84.7	84.7
>= 2000	30.3	56.9	65.4	75.3	80.5	83.0	86.1	86.7	86.7	87.1	87.2	87.2
>= 1800	30.4	57.6	66.2	76.0	81.8	84.3	87.5	88.3	88.5	88.7	88.8	88.8
>= 1500	31.1	58.9	67.8	78.2	83.8	86.4	89.6	90.6	90.7	91.0	91.3	91.3
>= 1200	31.2	59.2	68.9	79.3	85.0	87.8	91.2	92.3	92.6	92.8	92.9	92.9
>= 1000	31.3	60.2	69.9	80.7	86.7	89.7	93.5	95.0	95.5	95.9	96.0	96.0
>= 900	31.3	60.3	69.6	70.0	80.8	86.9	89.8	93.6	95.1	95.8	96.1	96.2
>= 800	31.3	60.4	70.1	80.9	87.1	90.2	94.2	95.7	96.3	96.7	96.8	96.8
>= 700	31.3	60.4	70.2	81.1	87.4	90.6	94.5	96.0	96.6	97.0	97.1	97.2
>= 600	31.3	60.6	70.4	81.3	87.6	90.9	94.9	96.6	97.3	97.8	97.9	98.0
>= 500	31.3	60.6	70.4	81.4	87.9	91.2	95.4	97.2	98.2	98.6	98.8	98.8
>= 400	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	98.7	99.2	99.3	99.4
>= 300	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	98.8	99.3	99.4	99.5
>= 200	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	98.8	99.5	99.6	99.6
>= 100	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	98.8	99.5	99.6	99.6
>= 0	31.3	60.7	70.5	81.5	88.0	91.3	95.5	97.3	98.8	99.5	99.6	99.6

TOTAL NO. OF OBS : 943

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 1900 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	
UNLIMIT	30.5	54.8	58.5	60.7	62.3	62.8	64.0	64.2	64.3	64.3	64.3
>=20000	31.1	56.4	60.4	63.2	64.8	65.3	66.6	66.8	66.9	66.9	66.9
>=18000	31.3	56.6	60.6	63.4	65.0	65.5	66.8	67.0	67.1	67.1	67.1
>=16000	31.3	56.8	60.9	63.7	65.3	65.8	67.1	67.3	67.4	67.4	67.4
>=14000	32.0	58.4	62.6	65.3	67.0	67.5	68.7	69.0	69.0	69.0	69.0
>=12000	32.7	59.6	63.9	66.8	68.4	69.0	70.3	70.5	70.6	70.6	70.6
>=10000	33.3	61.1	65.4	68.7	70.4	71.0	72.3	72.5	72.6	72.6	72.6
>= 9000	33.4	61.2	65.5	68.8	70.5	71.1	72.4	72.6	72.7	72.7	72.7
>= 8000	34.4	62.2	67.6	71.1	72.7	73.3	74.7	75.0	75.1	75.1	75.1
>= 7000	34.7	64.0	68.6	72.1	73.7	74.4	75.7	75.9	76.0	76.1	76.1
>= 6000	34.8	64.4	69.0	72.5	74.2	74.8	76.1	76.4	76.5	76.5	76.5
>= 5000	35.4	65.5	70.2	73.7	75.5	76.1	77.5	77.7	77.8	77.9	77.9
>= 4500	35.6	66.1	70.8	74.5	76.2	76.8	78.3	78.5	78.6	78.7	78.7
>= 4000	36.4	67.1	72.1	75.8	77.5	78.2	79.6	79.8	79.9	80.0	80.0
>= 3500	36.9	67.2	73.1	76.8	78.6	79.2	80.6	80.8	80.9	81.0	81.0
>= 3000	37.5	69.4	74.9	77.5	81.6	83.6	84.2	85.6	86.1	86.3	86.3
>= 2500	38.1	71.8	77.5	80.3	84.0	84.2	84.4	85.6	86.2	86.2	86.2
>= 2000	38.6	74.6	80.3	84.6	86.6	87.2	88.6	88.6	89.0	89.2	89.2
>= 1800	38.6	74.8	80.6	84.9	86.9	87.5	88.9	89.2	89.5	89.5	89.5
>= 1500	39.2	76.2	82.5	86.8	88.9	89.5	91.0	91.3	91.4	91.6	91.6
>= 1200	39.6	77.4	84.3	89.0	91.3	91.9	93.3	93.6	93.7	93.9	93.9
>= 1000	39.7	78.4	85.6	90.5	92.7	93.4	94.9	95.2	95.3	95.5	95.5
>= 900	39.7	78.6	85.9	91.0	93.3	94.1	95.5	95.8	95.9	96.1	96.1
>= 800	39.9	79.2	86.8	91.8	94.3	95.0	96.4	96.7	96.8	97.0	97.0
>= 700	39.9	79.3	86.9	91.9	94.4	95.1	96.5	96.9	97.0	97.2	97.2
>= 600	40.0	79.4	87.1	92.2	94.9	95.6	97.0	97.5	97.6	97.8	97.8
>= 500	40.0	79.4	87.1	92.2	95.1	95.8	97.4	98.2	98.3	98.6	98.7
>= 400	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.0	99.1
>= 300	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.2	99.3
>= 200	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.4	99.5
>= 100	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.5	99.6
>= 0	40.0	79.5	87.3	92.4	95.5	96.2	97.8	98.7	98.8	99.5	100.0

TOTAL NO. OF OBS : 975

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : 2200 LST

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=1/4	>=0
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4		
UNLIMIT	29.0	49.3	53.3	56.5	59.1	59.0	61.0	61.1	61.5	61.6	61.9	62.0
>=20000	29.9	51.3	55.6	58.8	61.4	62.1	63.6	63.6	64.0	64.1	64.3	64.6
>=18000	30.0	51.5	55.8	59.0	61.6	62.3	63.7	63.8	64.2	64.3	64.5	64.8
>=16000	30.1	51.8	56.0	59.2	62.0	62.6	64.0	64.1	64.5	64.6	64.8	65.2
>=14000	30.6	52.7	56.9	60.1	63.0	63.6	65.1	65.3	65.7	65.8	66.0	66.3
>=12000	31.1	53.6	58.0	61.4	64.3	64.9	66.4	66.6	67.0	67.1	67.3	67.6
>=10000	31.6	54.8	59.3	63.0	66.0	66.6	68.0	68.2	68.7	68.8	69.0	69.3
>=9000	31.9	55.3	59.7	63.5	66.5	67.1	68.7	68.9	69.3	69.4	69.6	69.9
>=8000	33.0	57.1	61.5	65.6	68.7	69.3	70.8	71.0	71.4	71.5	71.8	72.1
>=7000	33.2	57.6	62.1	66.2	69.3	69.9	71.4	71.6	72.1	72.2	72.4	72.7
>=6000	33.2	57.9	62.4	66.6	69.7	70.3	71.9	72.1	72.5	72.6	72.8	73.1
>=5000	33.9	59.2	63.7	68.0	71.1	71.8	73.3	73.5	73.6	74.0	74.3	74.6
>=4500	34.6	60.0	64.5	68.9	72.1	72.7	74.2	74.4	74.5	74.9	75.1	75.4
>=4000	35.3	61.0	65.8	70.2	73.5	74.1	75.7	75.9	76.0	76.4	76.5	76.7
>=3500	36.4	62.6	67.4	71.9	75.2	75.8	77.3	77.5	77.6	78.0	78.1	78.4
>=3000	37.0	64.2	69.5	74.1	77.4	78.0	79.7	79.9	80.0	80.4	80.5	80.7
>=2500	37.8	65.9	71.1	75.8	79.1	79.7	81.3	81.5	81.6	82.1	82.2	82.7
>=2000	38.7	68.5	74.3	79.2	82.5	83.1	84.7	84.9	85.1	85.5	85.6	86.1
>=1800	38.7	68.8	74.6	79.5	82.8	83.4	85.2	85.4	85.5	86.0	86.2	86.5
>=1500	39.1	71.1	77.1	82.5	86.1	86.7	88.5	88.7	88.8	89.3	89.5	89.8
>=1200	39.5	72.5	78.8	84.2	88.2	89.0	90.2	91.1	91.2	91.8	92.0	92.3
>=1000	40.0	73.4	80.1	86.3	91.0	93.0	93.2	93.3	93.7	93.8	94.0	94.3
>=900	40.1	73.5	80.3	86.7	90.8	91.5	93.6	93.8	93.9	94.4	94.5	94.7
>=800	40.2	73.9	80.7	87.2	91.3	92.2	94.1	94.4	94.5	95.1	95.2	95.7
>=700	40.3	74.3	81.1	87.6	91.8	92.6	94.6	95.1	95.2	95.7	95.8	96.0
>=600	40.3	74.6	81.5	88.0	92.2	93.0	95.3	95.7	95.8	96.5	96.5	96.8
>=500	40.3	74.9	81.9	88.4	92.6	93.5	95.8	96.3	96.4	96.9	97.3	97.6
>=400	40.3	75.1	82.0	88.5	92.7	93.6	96.0	96.6	96.7	97.2	97.6	97.9
>=300	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.5	97.9	98.5
>=200	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.1	98.9
>=100	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.1	99.1
>=0	40.3	75.1	82.0	88.5	92.8	93.7	96.1	96.8	96.9	97.6	98.2	99.0

TOTAL NO. OF OBS : 970

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)									
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4
UNLIMIT	23.7	41.1	45.1	49.3	52.6	54.0	55.7	56.2	56.7	56.7
>=20000	24.3	42.7	47.0	51.5	55.0	56.4	58.3	58.8	59.3	59.4
>=18000	24.5	43.0	47.3	51.8	55.3	56.7	58.7	59.2	59.7	59.8
>=16000	24.5	43.2	47.5	52.0	55.6	57.0	58.9	59.5	59.9	60.0
>=14000	25.0	44.1	48.5	53.3	56.9	58.4	60.4	61.0	61.4	61.5
>=12000	25.7	45.2	49.8	54.8	58.6	60.1	62.2	62.8	63.4	63.5
>=10000	26.4	46.5	51.3	56.5	60.5	62.0	64.2	64.9	65.0	65.5
>=9000	26.6	46.7	51.6	56.8	60.8	62.4	64.6	65.3	65.4	65.6
>=8000	27.3	48.2	53.1	58.5	62.6	64.2	66.4	67.2	67.8	67.9
>=7000	27.5	48.9	53.9	59.4	63.5	65.1	67.4	68.2	68.7	68.8
>=6000	27.7	49.2	54.2	59.7	63.9	65.5	67.7	68.5	69.1	69.2
>=5000	28.2	50.3	55.4	61.0	65.2	66.8	69.1	69.9	70.5	70.6
>=4500	28.7	51.2	56.4	62.0	66.3	67.9	70.2	71.0	71.7	71.7
>=4000	29.2	52.1	57.4	63.0	67.3	69.3	71.3	72.2	72.7	72.9
>=3500	29.7	52.1	58.4	64.1	68.4	70.1	72.4	73.4	73.9	74.0
>=3000	30.6	54.9	60.5	66.3	70.8	72.4	74.9	75.8	76.3	76.5
>=2500	31.5	56.9	62.6	68.6	73.2	74.9	77.5	78.4	79.0	79.1
>=2000	32.5	59.5	65.5	71.7	76.5	78.3	80.9	81.9	82.4	82.6
>=1800	32.8	60.1	66.2	72.5	77.3	79.1	81.8	82.8	83.4	83.5
>=1500	33.2	61.8	68.2	74.7	79.9	81.8	84.5	85.6	86.2	86.4
>=1200	33.5	62.9	69.5	76.4	81.4	83.6	86.5	87.5	88.2	88.3
>=1000	33.8	63.9	70.9	78.2	83.7	85.7	88.7	89.9	90.0	90.8
>=900	33.8	64.1	71.2	78.7	84.3	86.3	89.4	90.6	91.0	91.1
>=800	33.9	64.5	71.7	79.3	85.1	87.2	90.4	91.6	91.4	91.6
>=700	33.9	64.7	72.0	79.7	85.7	87.8	91.2	92.6	92.7	92.8
>=600	33.9	64.9	72.3	80.1	86.3	88.5	92.0	93.5	93.6	93.8
>=500	33.9	65.0	72.4	80.4	86.7	88.2	92.6	94.4	94.7	94.8
>=400	33.9	65.0	72.6	80.5	86.9	89.2	92.7	94.7	95.3	95.6
>=300	33.9	65.1	72.6	80.5	87.0	89.3	93.0	95.0	95.3	96.3
>=200	33.9	65.1	72.6	80.5	87.0	89.3	93.2	95.1	95.2	96.8
>=100	33.9	65.1	72.6	80.5	87.0	89.3	93.3	95.1	95.3	96.5
>=0	33.9	65.1	72.6	80.5	87.0	89.3	93.3	95.1	95.3	96.5

TOTAL NO. OF OBS : 7136

## 2 - CEILING VS VISIBILITY

023239 : ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986  
 CLASS : ALL WEATHER  
 CONDITION : NONE SPECIFIED

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 HOUR : ALL

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

CEILING	VISIBILITY (STATUTE MILES)										>=0				
	>=10	>=6	>=5	>=4	>=3	>=2 1/2	>=2	>=1 1/2	>=1	>=1/4	>=3/4	>=5/8	>=1/2	>=5/16	>=1/4
UNLIMIT	37.0	56.0	57.9	59.3	60.3	60.6	61.0	61.2	61.3	61.3	61.3	61.3	61.3	61.3	61.4
>=20000	37.9	58.0	60.0	61.5	62.6	62.9	63.4	63.5	63.6	63.6	63.6	63.6	63.7	63.7	63.7
>=18000	38.0	58.4	60.3	61.9	62.9	63.3	63.7	63.8	63.9	64.0	64.0	64.0	64.0	64.0	64.1
>=16000	38.2	58.6	60.6	62.1	63.2	63.6	64.0	64.1	64.2	64.2	64.3	64.3	64.3	64.3	64.4
>=14000	38.8	59.6	61.7	63.3	64.4	64.8	65.2	65.4	65.4	65.4	65.5	65.5	65.5	65.5	65.6
>=12000	39.6	60.9	63.0	64.7	65.8	66.2	66.6	66.8	66.9	66.9	67.0	67.0	67.0	67.0	67.1
>=10000	40.3	62.1	64.3	66.1	67.2	67.6	68.1	68.3	68.4	68.4	68.5	68.5	68.5	68.5	68.6
>=9000	40.4	62.4	64.6	66.3	67.5	67.9	68.4	68.6	68.6	68.7	68.7	68.8	68.8	68.8	68.8
>=8000	41.1	63.5	65.8	67.5	68.8	69.2	69.7	69.9	69.9	70.0	70.0	70.0	70.0	70.0	70.1
>=7000	41.3	64.0	66.3	68.1	69.3	69.7	70.3	70.4	70.5	70.6	70.6	70.6	70.6	70.6	70.7
>=6000	41.5	64.3	66.6	68.4	69.6	70.1	70.6	70.8	70.8	70.8	70.9	70.9	70.9	71.0	71.0
>=5000	41.9	65.0	67.4	69.2	70.5	70.9	71.4	71.6	71.6	71.7	71.7	71.8	71.8	71.8	71.8
>=4500	42.3	65.7	68.0	69.9	71.1	71.6	72.1	72.3	72.3	72.4	72.4	72.5	72.5	72.5	72.5
>=4000	42.6	66.3	68.7	70.6	71.9	72.3	72.8	73.0	73.1	73.2	73.2	73.2	73.2	73.3	73.3
>=3500	43.1	67.1	69.5	71.3	73.1	73.6	73.8	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.1
>=3000	43.8	68.4	70.8	72.8	74.1	74.5	75.1	75.3	75.4	75.4	75.5	75.5	75.5	75.5	75.6
>=2500	44.8	69.9	72.5	74.5	75.9	76.3	76.9	77.1	77.2	77.2	77.3	77.3	77.3	77.3	77.4
>=2000	46.0	72.2	74.8	76.9	78.4	78.9	79.5	79.7	79.7	79.8	79.9	79.9	79.9	79.9	80.0
>=1800	46.3	72.9	75.6	77.7	79.2	79.7	80.3	80.5	80.6	80.7	80.7	80.7	80.7	80.7	80.8
>=1500	47.3	75.3	78.2	80.5	82.0	82.5	83.2	83.4	83.5	83.6	83.6	83.6	83.7	83.7	83.7
>=1200	48.3	77.7	80.7	83.1	84.7	85.3	86.0	86.2	86.3	86.4	86.4	86.5	86.5	86.5	86.5
>=1000	49.2	80.2	83.3	85.9	87.6	88.2	89.2	89.2	89.3	89.4	89.4	89.5	89.5	89.5	89.6
>=900	49.5	81.3	84.6	87.9	89.5	90.5	90.5	90.6	90.6	90.7	90.7	90.9	90.9	90.9	91.0
>=800	49.8	82.6	86.0	88.7	90.5	91.1	92.0	92.3	92.5	92.5	92.5	92.6	92.6	92.6	92.7
>=700	50.1	83.9	87.4	90.2	92.1	93.6	93.9	93.9	94.1	94.1	94.2	94.2	94.2	94.2	94.3
>=600	50.3	85.2	88.9	91.8	93.8	94.4	95.3	95.7	95.8	96.0	96.0	96.1	96.1	96.1	96.1
>=500	50.4	86.1	89.9	93.0	95.0	95.7	96.6	97.0	97.1	97.3	97.4	97.4	97.4	97.4	97.5
>=400	50.5	86.7	90.7	93.8	95.9	96.6	97.6	98.1	98.4	98.5	98.5	98.6	98.6	98.6	98.7
>=300	50.5	86.8	90.9	94.1	96.3	97.3	98.0	98.5	98.6	99.0	99.0	99.1	99.1	99.1	99.2
>=200	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.3	99.3	99.4	99.4
>=100	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.3	99.4	99.5	99.7
>=0	50.5	86.9	91.0	94.2	96.3	97.0	98.1	98.6	98.7	99.0	99.2	99.3	99.4	99.5	100.0

TOTAL NO. OF OBS : 91807

023239 ALAMEDA CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT MONTH : JAN PAGE 1

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN  
PAGE 2

DRY-BULB TEMP. 1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-18 19-20 21-22 23-24 25-26 27-28 29-30 2 30. D.B./  
(DEG F) W.B. BULB DEW PT.

TOTAL 8.0 38.1 27.7 14.2 5.9 3.5 1.7 .7 .3 .1 .0\* .0\* .0 .0 .0 .0 7927 7927 7930

ELEMENT(X1) SUM X - SUM X\*#2 MEAN STD. DEV # OBS

	<=0 F	>=32 F	>=67 F	>=73 F	>=80 F	>=93 F	TOTAL
28 - REL HUM	618327.	50286783.	78.0	16.082	7926	.0	
15 - DRY BULB	393001.	19692549.	49.5	5.363	7935	1.3	0
16 - WET BULB	365566.	17067202.	46.1	5.130	7927	0	0
17 - DEW PT.	335446.	14632100.	42.3	7.470	7930	4.7	0
						69.2	744

% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

40 - MEAN NO. OF HOURS WITH TEMP.

0023239 ALAMEDA, CA PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : FEB PAGE 1

023239 ALAMEDA CA PERIOD OF RECORD : 1955-1986

LAT. : 32-47N LONG. : 122-19W ELEV. : 15 FT MONTH : MAR PAGE 1

0023239 ALAMEDA, CA  
OPER100 OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 115 FT MONTH : APR PAGE 1

DRY-FUBL TEMP. (DEG F)	WET-FUBL TEMP. (DEG F)	% FREQUENCY OF DEPRESSION (DEG F)												TOTAL OBS.					
		7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	2-30	D.B.Z. W.B.	DRY BULB	WET BULB	DEW PT.	
87	87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	2	0	0	
85	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	0	0	0	
83	83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	3	0	0	
81	81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12	12	0	0	
79	79	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19	19	0	0	
77	77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28	28	0	0	
75	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41	41	0	0	
73	73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58	58	0	0	
71	71	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74	74	1	0	
69	69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	105	105	3	0	
67	67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	184	184	6	0	
65	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	245	245	27	0	
63	63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	344	344	36	7	
61	61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	491	491	90	11	
59	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	620	620	198	25	
57	57	0.2	1.1	2.7	3.3	2.1	1.0	0.6	0.3	0.1	0.1	0.0	0.0	0.0	830	830	434	92	
55	55	0.2	2.8	4.8	3.5	1.8	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1066	1066	704	223	
53	53	0.2	3.9	5.7	3.3	1.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1126	1126	1011	420	
51	51	0.2	4.0	6.5	3.1	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1153	1153	1299	754	
49	49	0.1	2.4	4.2	2.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	713	713	1351	991	
47	47	0.0	1.5	2.0	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	368	368	1135	1101	
45	45	0.0	0.8	1.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	123	123	773	1093	
43	43	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41	41	915	3	
41	41	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9	157	701	4	
39	39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	49	554	67	
37	37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	16	320	33	
35	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	1	164	21	
33	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	13	
31	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	2	
29	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
27	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
25	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
23	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
21	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
19	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
17	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
15	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
13	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
11	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
10	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
9	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
8	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
7	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
6	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
5	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
4	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
3	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	
TOTAL	11.1	17.5	29.2	22.1	13.8	6.2	3.8	1.8	0.8	0.2	0.1	0.0	0.0	0.0	0.0	7660	7667	7667	

0023239 ALAMEDA, CA PERIOD OF RECORD : 1955-1986

### 3 - PSYCHOMETRIC SUMMARY

LAT. : 37 47N LONG. : 122 19W ELEV. : - 15 FT MONTH : MAY PAGE 1

ELEMENT#1	ELEMENT#2	SUM X	SUM X <sup>2</sup>	MEAN	STD. DEV.	# OBS	40° - MEAN NO. OF HOURS WITH TEMP. >= 93° F TOTAL			
							<= 0° F	<= 32° F	>= 67° F	>= 73° F
28 - REL HUM	559718.	41096694.	70.5	14.269	7935					
15 - DRY BULB	462776.	27318322.	58.3	6.436	7935	•	•	77.0	22.9	6.8
16 - WET BULB	418688.	22226100.	52.8	4.112	7935	•	•	1.1	1.1	•
17 - DEW PT.	381760.	18527832.	48.1	4.505	7935	•	•	1.1	1.1	•

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : JUN  
PAGE : 1

DRY-BULB TEMP. (DEG F)	WET-BULB TEMP. (DEG F)	% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)												TOTAL OBS									
		7-8	9-10	11-12	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	23-24	25-26	27-28	28-29	29-30	2-30	D.B. W.B.	DRY WET	BULB BULB	P.T. PT.
>= 99	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0*	• 0*	• 3	0
>= 97	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	2	0
>= 95	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	1	0
>= 93	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	6	0
>= 91	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	6	0
>= 89	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	16	0
>= 87	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	16	0
>= 85	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	17	0
>= 83	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	34	0
>= 81	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	34	0
>= 79	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	51	0
>= 77	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	61	0
>= 75	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	84	0
>= 73	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	84	0
>= 71	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	227	1
>= 69	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	379	19
>= 67	• 0	• 0*	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	453	42
>= 65	• 0	• 0*	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	581	99
>= 63	• 0*	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	• 1	647	245
>= 61	• 0*	• 4	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	• 2	688	494
>= 59	• 1.4	• 5.8	• 3.2	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	• 1.0	881	865
>= 57	• 0*	• 3.16	• 0.81	• 2.1	• 1.4	• 2.4	• 1.9	• 1.5	• 0.5	• 0.0*	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	1126	
>= 55	• 1	• 5.8	• 7.0	• 1.9	• 1.1	• 3.7	• 1.1	• 3	• 0*	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	1138	
>= 53	• 1	• 6.1	• 3.5	• 0.6	• 1	• 2.7	• 0.8	• 1	• 0*	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	• 0.0	786	
>= 51	• 1	• 1.9	• 0.8	• 1	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	234	
>= 49	• 2	• 2	• 1	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	38	
>= 47	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	79	
>= 45	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 43	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 41	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 39	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 37	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 35	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 33	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 31	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
>= 29	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	0	
TOTAL	.5	19.6	29.2	19.3	14.6	8.1	4.4	2.0	1.1	.7	.4	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	7677	

ELEMENT(X)	SUM X	SUM X**2	MEAN STD. DEV.	# OBS	40. - MEAN NO. OF HOURS WITH TEMP.
28 - REL HUM	555925.	41837417.	72.4	14.349	7677
15 - DRY BULB	470398.	29183862.	61.2	6.961	7680
16 - WET BULB	427757.	23950417.	55.7	3.889	7677
17 - DEW PT.	396224.	21541228.	51.6	3.597	7680

ELEMENT(X)	SUM X	SUM X**2	MEAN STD. DEV.	# OBS	40. - MEAN NO. OF HOURS WITH TEMP.
28 - REL HUM	555925.	41837417.	72.4	14.349	7677
15 - DRY BULB	470398.	29183862.	61.2	6.961	7680
16 - WET BULB	427757.	23950417.	55.7	3.889	7677
17 - DEW PT.	396224.	21541228.	51.6	3.597	7680

023239 ALAMEDA CA PERIOD OF RECORD : 1955-1986

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT  
MONTH : JUL PAGE 1

ELEMENT(x)	SUM X	SUM X**2	MEAN	STD	DEV	# O/S	- MEAN NO. OF HOURS WITH TEMP.			TOTAL
							<= 0 F	<= 32 F	>= 67 F	
28 - REL HUM	595351.	46178803.	75.1	13.64	8	7929				
- DRY BULB	4895319.	30523113.	61.7	6.40	5	7936	.4	.0	160.7	744
- WET BULB	4495112.	25584068.	56.7	3.55	6	7929	.7	.7	5.7	744
- DEW PT.	421614.	22474958.	53.1	2.97	7	7934	.4	.0	.3	744

PERIOD OF RECORD : 1955-1986  
023229 ALAMEDA, CA

LAT : 37 47N LONG : 122 19W ELEV : 15 FT MONTH : AUG PAGE 1

ELEMENT(X)	SUM X	SUM X**2	MEAN	STD DEV	# ORS	- MEAN NO. OF HOURS WITH TEMP.				
						<=0 F	<=32 F	>=67 F	>=73 F	
28 - REL HUM	605649.	47649289.	76.3	13.336	7933	.6	177.7	51.3	9.7	.2
15 - DRY BULB	494285.	31092311.	62.3	6.213	7936	.0	.0	.0	.0	.0
16 - WET BULL	456142.	26320412.	57.5	3.416	7933	.3	4.6	.0	.0	.0
17 - DEW PT.	430216.	23383176.	54.2	2.770	7936	.0	.0	.0	.0	.0

023239 ALAMEDA CA PERIOD OF RECORD : 1955-1986

023239 ALAMEDA CA PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : SEP PAGE 1

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP  
PAGE 2

DRY-BULB TEMP. °C 1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-18 19-20 21-22 23-24 25-26 27-28 29-30 > 30  
(DEG F)

TOTAL .09 23.4 26.0 17.5 11.9 8.1 4.2 2.3 1.8 1.3 .9 .6 .5 .2 .2 .1 .1 7677 7673 7676

ELEMENT(X1) SUM X... SUM X\*\*2... MEAN STD DEV ... # O.R.S.

	<=20	<=32	>=67	>=73	>=80	>=93	TOTAL				
28 - REL HUM	558773.	42699853.	72.8	16.179	7673	•0	210.6	80.9	26.8	1.2	720
15 - DRY BULB	489865.	31641299.	63.8	7.066	7677	•7	11.5	•1	•0	•0	720
16 - WET BULB	445474.	25964706.	58.1	3.640	7673	•0	6.6	•0	•0	•0	720
17 - DEW PT.	414304.	22488108.	54.0	4.060	7676	1.9	•0	•0	•0	•0	720

% FREQ. WET BULB TEMPERATURE DEPRESSION (DEG F)

TOTAL OBS D.B./ DRY BULB BULB DEW PT.

023239 ALAMEDA CA PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT MONTH : OCT PAGE 1

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : OCT  
PAGE : 2

DRY-BULB TEMP. (DEG F)	% FREQ.	WET BULB TEMPERATURE DEPRESSION (DEG F)												TOTAL OBS														
		7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	> 30			
TOTAL	1.4	21.5	27.1	18.0	11.9	7.6	4.5	2.8	1.6	1.3	1.1	.7	.4	.1	.1	.0*	.0*	7936	7932	7935	7932	7932	7932	7932	7932	7932	7932	
ELEMENT#1		SUM X	SUM X* <sup>2</sup>	MEAN	SIG. DEV.	# OBS																						
28 - REL HUM	568446.	43099638.	71.7	17.257	7932																							
15 - DRY BULB	487050.	30225994.	61.4	6.494	7936																							
16 - WET BULB	441231.	24679521.	55.6	4.130	7932																							
17 - DEV PT.	405321.	20993309.	51.1	6.040	7935																							

<=0 F		<=32 F		>=67 F		>=73 F		>=80 F		>=86 F		>=93 F		TOTAL		
15	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

\* = MEAN NO. OF HOURS WITH TEMP.

002 3239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

023239 ALAMEDA CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N. LONG. : 122.19W. ELEV. : -15.FI. MONTH : NOV  
PAGE 1

3 - PSYCHOMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : DEC PAGE 1

ELEMENT(X)	SUM X	SUM X*#2	MEAN	SID DEV	N OBS
228 - REL HUM	610212.	49004290.	76.0	16.074	7930
415 - DRY BULB	402237.	20634505.	50.7	5.493	7933
416 - WET BULB	372959.	17759761.	47.0	5.255	7930
417 - DEW PT.	341657.	15170261.	43.1	7.581	7933

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT. MONTH : ANN  
PAGE 1

DRY-BUILD

% FREQ. BULB TEMPERATURE DEPRESSION (DEG F)

DRY-BULB TEMP., (DEG F)	W.E.B.	TOTAL OBS									
		15-16 9-10	13-14 11-12	17-18 15-16	19-20 21-22	23-24 25-26	27-28 25-26	29-30 27-28	D.R. W.B.	DRY BULB	WET DEH. PT.
>=105	0	0	0	0	0	0	0	0	0*	1	0
>=103	0	0	0	0	0	0	0	0	0*	0	0
>=101	0	0	0	0	0	0	0	0	0*	1	0
>=99	0	0	0	0	0	0	0	0	0*	1	0
>=97	0	0	0	0	0	0	0	0	0*	4	0
>=95	0	0	0	0	0	0	0	0	0*	0	0
>=93	0	0	0	0	0	0	0	0	0*	0	0
>=91	0	0	0	0	0	0	0	0	0*	15	0
>=89	0	0	0	0	0	0	0	0	0*	29	0
>=87	0	0	0	0	0	0	0	0	0*	56	0
>=85	0	0	0	0	0	0	0	0	0*	0	0
>=83	0	0	0	0	0	0	0	0	0*	0	0
>=81	0	0	0	0	0	0	0	0	0*	0	0
>=79	0	0	0	0	0	0	0	0	0*	0	0
>=77	0	0	0	0	0	0	0	0	0*	0	0
>=75	0	0	0	0	0	0	0	0	0*	0	0
>=73	0	0	0	0	0	0	0	0	0*	0	0
>=71	0	0	0	0	0	0	0	0	0*	0	0
>=69	0	0	0	0	0	0	0	0	0*	0	0
>=67	0	0	0	0	0	0	0	0	0*	0	0
>=65	0	0	0	0	0	0	0	0	0*	0	0
>=63	0	0	0	0	0	0	0	0	0*	0	0
>=61	0	0	0	0	0	0	0	0	0*	0	0
>=59	0	0	0	0	0	0	0	0	0*	0	0
>=57	0	0	0	0	0	0	0	0	0*	0	0
>=55	0	0	0	0	0	0	0	0	0*	0	0
>=53	0	0	0	0	0	0	0	0	0*	0	0
>=51	0	0	0	0	0	0	0	0	0*	0	0
>=49	0	0	0	0	0	0	0	0	0*	0	0
>=47	0	0	0	0	0	0	0	0	0*	0	0
>=45	0	0	0	0	0	0	0	0	0*	0	0
>=43	0	0	0	0	0	0	0	0	0*	0	0
>=41	0	0	0	0	0	0	0	0	0*	0	0
>=39	0	0	0	0	0	0	0	0	0*	0	0
>=37	0	0	0	0	0	0	0	0	0*	0	0
>=35	0	0	0	0	0	0	0	0	0*	0	0
>=33	0	0	0	0	0	0	0	0	0*	0	0
>=31	0	0	0	0	0	0	0	0	0*	0	0
>=29	0	0	0	0	0	0	0	0	0*	0	0
>=27	0	0	0	0	0	0	0	0	0*	0	0
>=25	0	0	0	0	0	0	0	0	0*	0	0
>=23	0	0	0	0	0	0	0	0	0*	0	0
>=21	0	0	0	0	0	0	0	0	0*	0	0
>=19	0	0	0	0	0	0	0	0	0*	0	0
>=17	0	0	0	0	0	0	0	0	0*	0	0
>=15	0	0	0	0	0	0	0	0	0*	0	0
>=13	0	0	0	0	0	0	0	0	0*	0	0
>=11	0	0	0	0	0	0	0	0	0*	0	0
>=9	0	0	0	0	0	0	0	0	0*	0	0

## 3 - PSYCHROMETRIC SUMMARY

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37.47N LONG. : 122.19W ELEV. : 15 FT  
MONTH : ANN PAGE : 2

DRY-BULB TEMP. - (DEG F)	WET-BULB TEMP. - (DEG F)	DEPRESSION (DEG F)	% FREQ.												TOTAL OBS		TOTAL DRY WET DEW H.R.% BULB BULB PT.	
			7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 30	D.B.%	W.B.	
>= 5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
>= 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
>= 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
>= -1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
>= -3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
>= -5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>= -7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>= -9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
TOTAL	2.6	25.3	28.3	18.4	11.3	6.7	3.3	1.7	.9	.6	.3	.2	.1	.0*	.0*	.0*	93469	93469
																		93443
																		93444

ELEMENT(X)	SUM X	SUM X**2	MEAN	STD DEV	# ORS	40 - MEAN NO. OF HOURS WITH TEMP.		
28 - REL HUM	6886536.	530364206.	73.7	15.635	93443	<=0 F	<=32 F	>=67 F
15 - DRY BULB	5366347.	313516523.	57.4	7.659	93499	>=73 F	>=80 F	>=93 F
16 - WET BULB	4906711.	260906841.	52.5	5.904	93494	•L	•9	1032.4
17 - DEW PT.	4515515.	222608493.	48.3	7.363	93469	5.6	320.8	86.0
						5.6	31.4	5.5
						•4	260.8	1.2
								0.0
								0.0
								0.0

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JAN  
 PAGE 1

TEMP. (DEG F.)	NNW E N	ENE E E	WIND DIRECTION				NNW E NN	CALM E W	TOTAL FREQ.	% OF TOTAL
			ESE E S	SSE S S	SSW S S	WSW E S				
>= 72	30.8	7.7	0.0	0.0	0.0	100.0	0.0	15.4	15.4	1.0*
>= 67	11.8	7.5	8.6	7.5	10.8	18.3	9.7	17.2	8.6	2.2
>= 62	11.6	2.0	3.5	9.9	21.0	12.0	15.6	18.5	5.9	64.8
>= 57	16.1	2.3	3.6	17.1	18.1	7.8	11.1	14.5	9.5	211.0
>= 52	25.8	4.1	4.4	13.0	11.5	5.9	6.3	16.4	14.6	26.6
>= 47	31.4	5.8	8.2	14.5	7.9	2.0	2.7	10.3	17.2	272.8
>= 42	27.9	7.4	8.1	17.2	4.1	0.4	2.0	9.4	23.4	183.8
>= 37	33.3	13.3	4.4	20.0	0.0	0.0	2.0	2.0	26.7	23.2
>= 32	23.4	5.3	4.1	14.4	12.7	5.1	7.2	14.2	13.7	458
TOTALS										7934

NOTES :  
 \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB  
 PAGE : 1

TEMP. (DEG F)	NNW		ENE		ESE		SSW		WSW		WNW		CALM		TOTAL FREQ.		% OF TOTAL	
	N	NNE	E	EE	SSE	S	SSW	SW	E	W	ENW	EW	NE	NW	0	0	0	0*
>= 77	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.7	0.0	0.0	0.0	1	1	0.0*	
>= 72	33.3	8.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	5.2	7.7	1.1	12	1.1	0.2	
>= 67	15.6	6.5	5.2	1.3	3.9	1.3	22.1	22.1	22.1	22.1	23.9	28.3	6.7	34.3	4.7	34.3	4.7	
>= 62	18.1	3.2	3.5	1.5	7.9	7.0	23.9	23.9	23.9	23.9	19.2	16.6	7.3	1350	18.7	1350	18.7	
>= 57	13.3	3.2	2.7	6.0	15.8	11.9	11.9	11.9	11.9	11.9	13.8	16.2	13.8	11.1	2645	36.6	2645	36.6
>= 52	15.1	2.4	2.8	13.6	17.4	7.6	7.6	7.6	7.6	7.6	14.7	11.8	14.7	15.3	2192	29.1	2192	29.1
>= 47	22.0	3.5	4.5	12.7	10.3	5.1	5.1	5.1	5.1	5.1	12.3	10.9	12.3	12.3	626	8.7	626	8.7
>= 42	25.1	7.2	9.4	16.9	3.2	2.2	5.8	5.8	5.8	5.8	19.3	10.9	19.3	19.3	11.4	7.0	11.4	7.0
>= 37	32.9	11.4	14.3	15.7	2.9	1.4	4.3	4.3	4.3	4.3	5.7	5.7	5.7	5.7	1.0	1.0	1.0	1.0
>= 32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	0.0*	
TOTALS	18.0	3.5	4.1	11.9	13.0	7.0	14.9	14.9	14.9	14.9	15.6	12.1	15.6	15.6	7227	100.0	7227	100.0

NOTES :  
 # = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMFDA CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR  
 PAGE 1

TEMP. (DEG F)	NNW		ENE		ESE		SSW		WSW		WNW		CALM		TOTAL		# OF REQ.
	NNW	ENNE	ENE	E	ESE	SSE	E	SSW	SW	WSW	WNW	ENNE	CALM	TOTAL	% OF TOTAL		
>= 82	-	-	4.0	-	4.0	-	4.0	-	4.0	100.0	4.0	-	4.0	-	4.0%		
>= 77	-	23.5	5.0	5.0	5.0	-	5.0	-	5.0	17.6	41.2	5.9	17	17	.2		
>= 72	21.2	1.9	3.8	3.8	3.8	-	3.8	-	3.8	21.2	40.4	4.0	52	52	.7		
>= 67	19.5	2.9	2.4	2.4	2.4	-	2.4	-	2.4	31.0	34.3	1.4	21.0	21.0	2.6		
>= 62	12.5	2.8	1.9	1.9	1.9	-	1.9	-	1.9	39.9	25.8	2.1	57.4	57.4	7.2		
>= 57	9.9	2.0	1.0	1.0	1.0	-	1.0	-	1.0	10.1	37.9	19.4	4.3	1612	20.3		
>= 52	10.8	2.2	2.3	2.3	2.3	-	2.3	-	2.3	13.1	10.6	26.5	16.4	16.4			
>= 47	14.3	2.9	6.4	6.4	6.4	-	6.4	-	6.4	5.9	21.0	20.1	9.4	2018	25.4		
>= 42	22.3	7.4	9.0	18.5	18.5	-	18.5	-	18.5	1.6	9.0	17.4	9.3	36.7	4.6		
>= 37	25.0	7.1	10.7	21.4	21.4	-	21.4	-	21.4	0.0	3.6	25.0	3.6	28	.4		
TOTALS	12.6	2.6	3.4	9.2	9.2	-	10.5	-	10.5	8.6	26.7	19.4	6.9	7934	100.0		

NOTES :  
 \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : APR  
PAGE : 1

TEMP. (DEG. F)	WIND DIRECTION								CALM	TOTAL	% OF TOTAL
	NNW E N	NNE E NE	E E E	ESE E SE	SSE E S	SSW E SW	WSW E W	WNW E NW			
>= 87	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	2	0*
>= 82	8.3	0.0	0.0	0.0	0.0	0.0	41.7	50.0	0.0	12	0.2
>= 77	5.6	11.1	4.0	0.0	0.0	3.7	27.8	50.0	1.9	54	0.7
>= 72	10.6	1.4	1.4	0.0	2.1	5.7	44.0	32.6	2.1	141	1.8
>= 67	9.9	2.8	0.0	0.9	1.9	5.9	48.0	29.1	1.5	323	4.2
>= 62	7.7	1.0	0.4	1.2	5.4	8.8	50.2	23.6	1.7	827	10.8
>= 57	8.9	1.3	1.5	3.7	10.8	12.0	41.2	15.8	5.7	1707	22.2
>= 52	8.0	1.0	2.0	6.9	9.4	10.6	38.5	16.8	6.9	2828	36.8
>= 47	10.9	2.3	5.2	8.3	7.9	9.9	25.8	22.1	7.7	1603	20.9
>= 42	17.8	3.9	6.7	16.1	5.6	7.8	13.9	17.8	10.6	180	2.3
>= 37	4.0	0.0	33.3	66.7	0.0	0.0	0.0	0.0	0.0	3	0.0*
TOTALS	9.1	1.6	2.2	5.7	8.3	10.1	37.5	19.5	6.0	7680	100.0

NOTES : \* = PERCENT < .05

#### 4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE VERSUS WIND DIRECTION (FROM HOURLY OBSERVATIONS)

0023239 ALAMEDA, CA PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW E W	WNW E NW	CALM	TOTAL FREQ.	% OF TOTAL
	E N	N E	E N	E E	E S	S E	E S	S E	E W	S W	E W	S W					
>= 92	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	50.0	0.0	0.0	0.0	0.0	0.1
>= 87	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	41.7	0.0	1.2	0.2	0.0	
>= 82	10.0	0.0	3.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	36.7	46.7	0.0	3.0	0.4	0.0	
>= 77	6.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.5	48.1	1.2	8.1	1.0	0.0	
>= 72	9.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.4	29.4	2.3	17.7	2.2	0.0	
>= 67	6.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.6	21.9	2.7	51.7	6.5	0.0	
>= 62	3.8	4.5	0.3	1.7	0.3	2.3	0.7	1.0	4.0	5.0	50.0	15.4	3.2	132.7	16.7	0.0	
>= 57	3.9	0.4	0.0*	2.1	0.3	2.1	0.3	1.2	0.0	0.0	51.6	14.1	6.6	204.7	25.8	0.0	
>= 52	4.3	0.8	1.4	3.3	5.0	3.3	5.0	15.1	15.1	15.1	50.6	13.7	5.9	292.5	36.9	0.0	
>= 47	3.4	0.6	2.1	3.5	3.5	3.5	3.5	17.5	4.4	4.4	17.6	7.4	8.0	800	10.1	0.0	
>= 42	6.7	0.0	6.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	66.7	6.7	0.0	6.7	1.5	0.2	
TOTALS	4.3	0.6	0.8	2.4	5.7	12.8	5.7	12.8	0.0	0.0	51.9	16.0	5.4	7935	100.0	0.0	

NOTES : PERCENT C DS

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
VERSUS  
WIND DIRECTION  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN  
PAGE : 1

TEMP. (DEG F)	WIND DIRECTION								NNW ENW	Calm ENW	TOTAL FREQ.	% OF TOTAL
	NNN E N	NNE E NE	ENE E E	ESE E SE	SSE S S	SSW S SW	WSW E W					
>= 97	.0	.0	.0	.0	.0	.0	.0	20.0	60.0	4.0	5	.1
>= 92	10.0	0.0	0.0	0.0	0.0	10.0	30.0	50.0	0.0	10	0.1	
>= 87	8.6	2.9	0.0	0.0	0.0	2.9	48.6	37.1	0.0	35	0.5	
>= 82	20.3	0.0	0.0	0.0	1.4	2.9	37.7	34.8	2.9	69	0.9	
>= 77	9.4	2.9	0.0	.7	.0	5.8	44.9	34.1	2.2	138	1.8	
>= 72	6.2	2.5	.7	.3	.8	5.9	56.0	26.1	2.2	357	4.6	
>= 67	3.9	.3	.0	.2	3.7	9.0	61.0	18.7	3.2	945	12.3	
>= 62	4.2	.7	.1	1.1	5.6	8.1	61.7	13.4	5.0	1584	20.6	
>= 57	2.5	.3	.6	2.2	4.4	11.9	60.3	12.0	5.7	2341	30.5	
>= 52	1.6	.2	.9	2.2	4.4	18.0	58.1	9.7	4.8	2104	27.4	
>= 47	.0	.0	1.1	2.2	9.8	18.5	55.4	9.8	3.3	92	1.2	
TOTALS	3.2	.5	.5	1.6	4.3	12.0	59.3	13.9	4.7	7680	100.0	

NOTES :  
\* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : JUL PAGE : 1

TEMP. (DEG F)	NNW		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL		% OF TOTAL			
	C	N	E	N	E	S	E	S	W	S	E	W	E	N	W	C	FREQ.					
>= 97	50.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	2	0.0	0.0	0.0	0.0	
>= 92	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	33.3	0.0	6	0.1	0.1						
>= 87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	83.3	0.0	24	0.3	0.3						
>= 82	14.0	0.0	0.0	0.0	0.0	0.0	4.7	2.3	41.9	37.2	0.0	0.0	43	0.5	0.5							
>= 77	10.8	0.7	0.0	0.0	0.0	1.4	0.7	0.7	47.5	38.8	0.0	0.0	129	1.8	1.8							
>= 72	6.6	0.3	0.0	0.0	0.6	0.9	5.5	4.9	49.4	35.1	1.7	1.7	348	4.4	4.4							
>= 67	3.0	0.4	0.2	0.2	0.2	1.4	1.4	0.4	6.3	1	22.9	22.9	2.3	1151	14.5	14.5						
>= 62	3.1	0.4	0.1	0.8	3.1	8.5	52.7	16.9	4.5	4.5	1730	21.6										
>= 57	2.0	0.2	0.1	1.0	2.0	14.4	60.5	14.4	5.5	5.5	2703	34.1										
>= 52	1.2	0.1	0.3	0.9	2.1	23.0	57.5	11.5	3.5	3.5	1738	21.9										
>= 47	0.0	0.0	0.0	2.0	2.0	64.0	64.0	6.0	2.0	50	2.0	50	0.6									
TOTALS	2.6	0.3	0.7	0.7	2.1	13.2	59.7	17.2	4.0	4.0	7934	100.0										

NOTES :  
 \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT  
 MONTH : AUG  
 PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		SSE		SSW		WSW		WNW		CALM		TOTAL		% OF TOTAL		
	E	N	E	N	E	E	S	E	S	E	SW	W	W	N	W	N	W	FREQ.					
>= 97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1	0.0	0.0	0.0	0.0		
>= 92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1	0.0	0.0	0.0	0.0	0.0		
>= 87	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	55.6	0.0	0.0	9	0.1							
>= 82	13.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.4	51.0	0.0	0.0	51	0.6							
>= 77	9.4	0.7	0.0	0.0	0.7	0.0	0.0	1.4	0.0	41.0	43.9	2.9	2.9	139	1.8								
>= 72	3.5	0.4	0.0	0.0	0.0	0.0	1.6	0.5	5.5	55.9	32.5	0.6	0.6	508	6.4								
>= 67	2.5	0.4	0.2	0.2	0.4	0.2	3.5	7.3	63.4	19.9	19.9	2.6	2.6	1186	14.9								
>= 62	3.1	0.5	0.2	0.2	1.8	0.4	3.4	9.6	60.5	15.6	15.6	5.3	5.3	1761	22.2								
>= 57	1.7	0.4	0.6	0.6	1.2	0.2	1.2	2.3	14.2	61.2	11.7	6.2	6.2	2998	37.8								
>= 52	1.6	0.0	0.1	0.1	0.6	0.6	2.4	2.3	53.7	12.5	5.6	1267	1267	1267	16.0								
>= 47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	53.3	6.7	20.0	20.0	20.0	15	0.2							
TOTALS	2.5	0.4	0.3	0.3	1.0	0.8	12.7	59.2	16.1	4.9	4.9	7936	100.0	100.0	100.0								

NOTES : \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

MONTH : SEP  
 PAGE : 1

TEMP. (DEG F.)	WIND DIRECTION								CALM	TOTAL FREQ.	% OF TOTAL
	NNW E N	NNE E NE	ENE E E	ESE E SE	SSE S S	SSW S SW	WSW W W	WNW W NW			
>= 102	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	0.0*
>= 97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7	3	0.0*
>= 92	14.3	0.0	0.0	0.0	0.0	0.0	0.0	28.6	50.0	7.1	14
>= 87	18.2	3.6	3.6	0.0	0.0	0.0	1.8	21.8	50.9	3.6	7
>= 82	14.8	0.7	0.7	0.7	0.7	1.5	3.7	36.3	39.3	2.2	1.8
>= 77	14.3	3.6	0.0	0.0	1.3	3.1	3.9	31.8	4.9	223	2.9
>= 72	11.1	1.0	0.0	0.0	2.3	4.5	4.5	27.0	4.8	603	7.9
>= 67	8.8	1.8	0.6	2.0	4.5	7.5	4.9	19.1	6.2	1211	15.8
>= 62	6.7	1.2	0.9	2.9	6.9	8.7	4.7	15.0	10.6	1964	25.6
>= 57	4.8	0.6	1.9	4.2	2.4	10.9	4.8	15.2	11.7	2644	34.4
>= 52	3.3	0.7	2.2	2.5	2.9	14.0	4.9	14.7	10.7	815	10.6
>= 47	12.5	0.0	0.0	0.0	0.0	37.5	37.5	12.5	8	1.1	1.1
TOTALS	6.8	1.1	1.1	2.8	3.8	9.1	47.7	17.9	9.5	7627	100.0

NOTES : \* = PFRCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : OCT PAGE 1

TEMP. (DEG F)	WIND DIRECTION								CALM FREQ.	TOTAL FREQ.	% OF TOTAL
	NNW E N	NNE E E	ENE E SE	ESE S E	SSE S S	SSW S SW	WSW E W	WNW E NW			
>= 97	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	0*
>= 92	0.0	0.0	33.3	0.0	0.0	0.0	66.7	0.0	3	3	0*
>= 87	30.0	20.0	10.0	0.0	0.0	0.0	20.0	0.0	10	10	0.1
>= 82	27.6	6.6	0.0	1.3	3.9	2.6	11.8	43.4	2.6	76	1.0
>= 77	14.9	5.7	1.4	0.0	2.1	5.0	26.2	41.8	2.8	141	1.8
>= 72	20.7	2.8	1.0	0.5	3.1	7.2	28.9	30.5	5.2	387	4.9
>= 67	14.5	2.8	1.1	3.2	6.3	7.8	36.7	22.2	5.3	892	11.3
>= 62	13.7	2.6	1.3	5.1	10.4	8.4	32.1	15.6	9.8	1778	22.4
>= 57	11.8	3.1	3.4	8.1	6.7	7.3	31.4	13.7	14.7	2743	34.6
>= 52	10.9	3.2	4.9	9.7	3.3	6.8	27.6	13.5	20.3	1787	22.5
>= 47	21.8	5.5	10.0	14.5	1.8	2.7	11.8	20.0	11.0	110	1.4
TOTALS	13.1	3.1	2.0	6.7	6.4	7.3	35.8	16.6	13.1	7935	100.0

NOTES :  
 \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV  
 PAGE : 1

TEMP. (DEG F.)	WIND DIRECTION								NNW EWN	NW ENW	CALM	TOTAL FREQ.	% OF TOTAL
	NNW C N	NNE ENE	ENE ESE	ESE SSE	SSE S S	SSW E SW	SW E W						
>= 77	18.2	0.0	0.0	0.0	0.0	0.1	9.1	36.4	27.3	9.1	1.1	1.1	1.1
>= 72	25.0	7.8	4.7	1.6	6.3	3.1	21.9	15.6	14.1	6.4	0.8	0.8	0.8
>= 67	18.9	4.3	3.5	0.4	2.4	7.1	28.3	6.7	25.4	3.3	2.3	2.3	2.3
>= 62	13.6	3.4	2.2	3.6	13.3	9.2	21.1	22.0	11.6	75.9	9.9	9.9	9.9
>= 57	14.8	3.3	2.5	11.9	15.7	7.5	17.4	14.9	12.0	21.84	28.4	28.4	28.4
>= 52	17.4	3.7	4.9	16.7	10.0	4.6	12.0	12.4	18.2	2812	36.6	36.6	36.6
>= 47	20.8	6.5	10.4	18.2	5.0	1.5	5.0	10.3	22.3	1387	18.1	18.1	18.1
>= 42	25.6	10.3	14.3	19.2	3.9	.5	3.0	4.4	18.7	203	2.6	2.6	2.6
>= 37	25.0	25.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	4	.1	.1	.1
TOTALS	17.2	4.3	5.2	13.7	10.6	5.3	13.6	14.1	16.1	7678	100.0		

NOTES : \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : DEC  
 PAGE 1

TEMP. (DEG F.)	WIND DIRECTION								CALM	TOTAL FREQ.	% OF TOTAL
	NNW	NNE	ENE	ESE	SSE	SSW	WSW	WNW			
	E N	E NE	E E	E SE	E S	E SW	E W	E NW			
>= 72	.0	.0	.0	.0	.0	.0	.0	.0	50.0	50.0	.0*
>= 67	21.1	10.5	5.3	5.3	5.3	5.3	10.5	10.5	26.3	10.5	.2
>= 62	19.3	5.1	5.0	1.7	1.7	11.8	9.2	16.8	23.5	7.6	11.9
>= 57	14.3	2.1	2.2	11.4	11.4	21.9	7.6	14.3	17.1	9.1	1.5
>= 52	18.5	3.2	4.2	15.0	15.0	16.1	5.6	9.8	13.8	971	12.2
>= 47	24.2	3.9	7.2	14.1	9.1	2.9	4.7	14.2	19.7	2527	31.9
>= 42	26.6	5.8	2.4	12.5	7.3	1.7	1.9	12.6	22.2	2513	31.7
>= 37	25.9	8.0	7.2	16.4	6.6	.9	.6	4.6	1389	17.5	4.4
>= 32	13.5	29.7	16.2	10.8	.0	.0	.0	2.7	348	37.0	.5
>= 27	.0	25.0	12.5	.0	.0	.0	.0	.0	62.5	.0	.1
TOTALS	21.5	4.1	6.3	13.6	12.5	4.1	7.0	13.9	7933	100.0	

NOTES :  
 \* = PERCENT < .05

4 - PERCENTAGE FREQUENCY OF AIR TEMPERATURE  
 VERSUS  
 WIND DIRECTION  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : ANN  
 PAGE 1

TEMP. (DEG F)	NNW		NNE		ENE		ESE		ESE		SSE		SSW		WSW		WNW		ENW		NW		CALM		TOTAL		% OF TOTAL				
	E	N	E	N	E	F	E	S	E	S	E	S	E	S	W	N	W	N	W	N	W	N	W	N	W	N	W	N	W	N	
>= 102	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
>= 97	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	41.7	0.0	0.0	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 92	13.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.9	50.0	2.6	0.0	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 87	13.6	4.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	50.3	1.4	0.0	147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 82	17.3	1.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	32.4	41.2	1.7	0.0	417	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 77	11.5	3.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	36.7	39.0	2.8	0.0	944	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 72	10.3	1.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	46.9	30.0	3.1	0.0	2652	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 67	7.5	1.5	0.6	1.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.9	22.0	3.8	0.0	6805	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 62	7.3	1.4	0.8	2.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.3	17.2	6.5	0.0	12859	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 57	7.2	1.4	1.4	4.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.6	11.1	14.8	0.0	23948	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 52	10.0	1.8	2.6	9.2	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.6	11.3	13.8	0.0	26613	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 47	19.2	3.6	5.8	12.4	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	14.2	16.3	0.0	13426	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 42	27.5	6.2	9.0	14.8	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	2.1	2.8	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 37	27.3	8.0	8.9	16.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	1.6	7.7	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 32	24.1	21.7	9.6	15.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
>= 27	0.0	25.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
TOTALS	11.2	2.2	2.7	7.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.7	9.0	9.0	0.0	16.2	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4		

NOTES : \* = PERCENT < .05

## 11 - SKY COVER

023239 ALAMEDA, CA  
 LAT. : 37° 47' N LONG. : 122° 19' W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986

PERCENTAGE FREQUENCY OF TOTAL SKY COVER  
 (FROM HOURLY OBSERVATIONS)  
 CLOUDS SCATTERED BROKEN OVERCAST

MONTH	HOURS (LST)	CLEAR	SCATTERED	BROKEN	OVERCAST	TOTAL
JAN	01	31.3	20.5	13.1	35.1	990
	04	29.4	17.1	14.2	39.4	991
	07	17.1	21.8	20.9	40.3	991
	10	14.1	20.6	23.3	42.1	989
	13	13.8	23.2	25.9	37.1	992
	16	14.7	24.7	25.2	35.3	991
	19	24.1	23.8	20.7	31.5	992
	22	29.6	20.0	17.9	32.5	992
ALL		21.8	21.5	20.2	36.6	7928
FEB	01	27.8	21.9	16.6	33.7	903
	04	25.9	17.9	17.7	38.5	904
	07	13.7	21.9	21.2	43.3	901
	10	13.3	18.4	27.1	41.2	903
	13	12.4	24.6	26.1	36.9	904
	16	11.5	25.4	25.6	37.5	903
	19	17.1	25.8	24.5	32.6	902
	22	26.8	22.4	19.7	31.1	903
ALL		18.6	22.3	22.3	36.9	7223
MAR	01	32.7	18.2	19.8	29.3	990
	04	29.2	19.4	18.9	32.6	992
	07	16.6	21.5	25.0	36.8	991
	10	16.6	24.3	26.6	32.5	992
	13	17.5	27.2	26.1	29.1	992
	16	16.0	30.3	23.2	30.4	992
	19	17.9	32.4	24.2	25.5	991
	22	31.6	24.3	18.4	25.7	991
ALL		22.3	24.7	22.8	30.2	7931
APR	01	37.2	24.8	16.3	21.7	958
	04	33.0	24.2	16.6	26.2	960
	07	19.5	26.9	23.6	30.0	957
	10	23.1	28.4	24.5	24.0	959
	13	22.4	31.0	26.4	20.2	960
	16	23.9	30.2	25.2	20.7	960
	19	20.7	36.0	23.5	19.7	960
	22	38.2	25.6	17.7	18.9	960
ALL		27.3	28.4	21.7	22.7	7674

## 11 - SKY COVER

023239 ALAMEDA, CA

LAT. : 37° 47'N LONG. : 122° 19'W ELEV. :

15 FT

PERIOD OF RECORD : 1955-1986

MONTH HOURS  
(LST) PRECENTAGE FREQUENCY OF TOTAL SKY COVER  
CLEAR SCATTERED BROKEN OVERCAST

					TOTAL
MAY	01	35.1	23.9	16.6	24.3
	04	28.0	23.3	17.7	30.9
	07	20.0	24.2	21.3	34.6
	10	27.9	27.6	20.9	23.6
	13	32.3	31.4	21.4	15.0
	16	30.1	35.7	20.8	13.4
	19	26.3	34.7	23.7	16.0
	22	35.7	28.3	14.6	21.4
ALL		29.4	28.6	19.5	992
					7935

					TOTAL
JUN	01	35.6	20.9	14.9	28.5
	04	25.5	22.1	13.6	38.7
	07	21.9	20.5	18.6	39.8
	10	30.0	26.9	21.3	21.8
	13	40.2	33.9	16.6	9.2
	16	40.0	35.6	16.9	7.5
	19	32.3	34.7	21.9	11.1
	22	37.4	27.5	15.5	19.6
ALL		32.9	27.8	17.4	22.0
					7678

					TOTAL
JUL	01	28.5	19.4	14.6	37.4
	04	21.7	15.7	14.0	48.6
	07	16.7	15.8	16.6	51.1
	10	31.5	24.6	18.6	25.3
	13	53.0	30.7	10.5	5.7
	16	57.3	30.6	8.6	3.5
	19	41.7	33.7	17.1	7.5
	22	35.0	24.7	14.7	24.6
ALL		35.7	24.4	14.4	25.5
					7934

					TOTAL
AUG	01	27.0	22.5	14.6	35.9
	04	20.5	17.3	16.2	45.9
	07	13.0	15.6	19.7	51.2
	10	28.1	26.0	18.2	27.6
	13	48.5	33.2	12.9	5.4
	16	48.7	35.1	11.8	4.4
	19	33.2	35.8	17.6	13.4
	22	32.2	26.9	14.1	26.8
ALL		31.5	26.5	15.4	26.3
					7936

11 - SKY COVER

023239 ALAMEDA, CA  
LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1955-1986

PERCENTAGE FREQUENCY OF TOTAL SKY COVER  
 (FROM HOURLY OBSERVATIONS)

	CLEAR	SCATTERED	BROKEN	OVERTCAST	TOTAL
1	1	1	1	1	1
2	1	1	1	1	1
3	1	1	1	1	1
4	1	1	1	1	1
5	1	1	1	1	1
6	1	1	1	1	1
7	1	1	1	1	1
8	1	1	1	1	1
9	1	1	1	1	1
10	1	1	1	1	1
11	1	1	1	1	1
12	1	1	1	1	1
13	1	1	1	1	1
14	1	1	1	1	1
15	1	1	1	1	1
16	1	1	1	1	1
17	1	1	1	1	1
18	1	1	1	1	1
19	1	1	1	1	1
20	1	1	1	1	1
21	1	1	1	1	1
22	1	1	1	1	1
23	1	1	1	1	1
24	1	1	1	1	1
25	1	1	1	1	1
26	1	1	1	1	1
27	1	1	1	1	1
28	1	1	1	1	1
29	1	1	1	1	1
30	1	1	1	1	1
31	1	1	1	1	1
32	1	1	1	1	1
33	1	1	1	1	1
34	1	1	1	1	1
35	1	1	1	1	1
36	1	1	1	1	1
37	1	1	1	1	1
38	1	1	1	1	1
39	1	1	1	1	1
40	1	1	1	1	1
41	1	1	1	1	1
42	1	1	1	1	1
43	1	1	1	1	1
44	1	1	1	1	1
45	1	1	1	1	1
46	1	1	1	1	1
47	1	1	1	1	1
48	1	1	1	1	1
49	1	1	1	1	1
50	1	1	1	1	1
51	1	1	1	1	1
52	1	1	1	1	1
53	1	1	1	1	1
54	1	1	1	1	1
55	1	1	1	1	1
56	1	1	1	1	1
57	1	1	1	1	1
58	1	1	1	1	1
59	1	1	1	1	1
60	1	1	1	1	1
61	1	1	1	1	1
62	1	1	1	1	1
63	1	1	1	1	1
64	1	1	1	1	1
65	1	1	1	1	1
66	1	1	1	1	1
67	1	1	1	1	1
68	1	1	1	1	1
69	1	1	1	1	1
70	1	1	1	1	1
71	1	1	1	1	1
72	1	1	1	1	1
73	1	1	1	1	1
74	1	1	1	1	1
75	1	1	1	1	1
76	1	1	1	1	1
77	1	1	1	1	1
78	1	1	1	1	1
79	1	1	1	1	1
80	1	1	1	1	1
81	1	1	1	1	1
82	1	1	1	1	1
83	1	1	1	1	1
84	1	1	1	1	1
85	1	1	1	1	1
86	1	1	1	1	1
87	1	1	1	1	1
88	1	1	1	1	1
89	1	1	1	1	1
90	1	1	1	1	1
91	1	1	1	1	1
92	1	1	1	1	1
93	1	1	1	1	1
94	1	1	1	1	1
95	1	1	1	1	1
96	1	1	1	1	1
97	1	1	1	1	1
98	1	1	1	1	1
99	1	1	1	1	1
100	1	1	1	1	1

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF TOTAL SKY COVER (FROM HOURLY OBSERVATIONS)			TOTAL	
		CLEAR	SCATTERED	BROKEN		
SEP	31	40.1	19.7	16.5	24.2	960
	04	33.3	15.8	14.7	36.1	960
	07	22.7	18.8	21.2	37.3	960
	10	33.4	24.9	18.8	23.0	959
	13	47.9	32.0	14.6	7.5	960
	16	49.1	31.2	13.6	6.2	959
	19	40.7	33.1	16.7	10.3	959
	22	45.4	22.8	15.1	16.7	959
ALL		39.1	24.5	16.2	20.2	7676

NON		DFC	
C	L	C	L
34.5	21.4	17.9	26.2
31.6	21.9	15.4	30.6
15.7	28.5	22.9	33.3
17.2	23.7	26.2	33.5
13	18.6	28.6	25.6
16	20.7	27.0	25.0
19	28.9	26.7	21.6
32	35.0	23.1	17.1
ALL	25.1	25.1	21.5
			28.3
			76.80
			992
			992
			991
			992
			992
			991
			991
			7932

## 11 - SKY COVER

023339 ALAMEDA, CA  
 LAT. : 37° 47' N LONG. : 122° 19' W ELEV. : 15 FT  
 PERIOD OF RECORD : 1955-1986

PERCENTAGE FREQUENCY OF TOTAL SKY COVER  
 (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	TOTAL SKY COVER			TOTAL
		CLEAR	SCATTERED	BROKEN	
ANN	01	33.6	21.1	15.8	29.5
	04	28.9	19.4	15.5	36.2
	07	18.2	22.1	20.8	39.0
	10	23.2	24.6	22.2	30.0
	13	29.6	29.6	20.8	30.0
	16	30.4	30.4	19.9	19.3
	19	29.2	31.1	20.4	19.3
	22	35.3	24.2	16.3	24.1
ALL		28.6	25.3	19.7	27.2
					93462

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

12 - RELATIVE HUMIDITY

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN										MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%	95%		
JAN	01	100.0	100.0	99.6	98.9	97.3	93.6	86.2	62.9	29.0	82.8	990	990
	04	100.0	99.9	99.3	97.8	96.5	93.2	85.6	66.7	33.3	83.3	990	990
	07	100.0	99.9	99.4	98.4	95.9	92.9	85.9	67.6	34.4	83.5	991	991
	10	100.0	100.0	98.7	96.1	92.3	86.8	73.6	48.2	21.4	77.7	992	992
	13	100.0	99.6	97.6	93.4	85.3	74.4	52.3	27.6	9.4	69.7	992	992
	16	100.0	99.1	97.6	92.3	84.2	70.5	49.0	26.2	10.6	68.6	991	991
FEB	19	100.0	99.8	99.0	97.6	93.8	88.3	72.3	44.4	17.4	77.2	990	990
	22	100.0	99.7	99.1	98.5	97.1	93.2	83.6	57.9	23.9	81.3	990	990
	ALL	100.0	99.7	98.8	96.7	92.8	86.6	73.6	50.2	22.4	78.0	1926	1926
	01	100.0	99.7	99.2	98.5	96.6	93.0	84.1	55.5	21.9	80.9	904	904
	04	100.0	99.8	99.1	98.0	96.1	92.8	86.0	60.2	27.2	81.9	904	904
	07	100.0	99.2	99.0	97.6	95.8	92.8	85.6	63.7	27.2	82.2	904	904
MAR	10	100.0	99.8	96.2	94.9	92.0	84.4	66.6	38.3	17.4	75.1	904	904
	13	100.0	99.4	96.5	91.2	81.0	62.9	39.3	20.5	6.4	65.5	904	904
	16	100.0	99.2	96.7	91.6	81.2	59.5	36.3	17.4	5.1	64.4	903	903
	19	100.0	99.8	99.1	97.9	94.1	85.3	64.2	34.6	9.5	74.3	902	902
	22	100.0	99.9	99.4	98.6	97.3	93.8	78.7	47.3	15.7	78.8	903	903
	ALL	100.0	99.0	98.4	96.0	91.8	83.1	67.6	42.2	16.3	75.4	7226	7226
APR	01	100.0	99.9	99.4	98.8	97.7	92.5	77.8	45.4	12.0	78.3	992	992
	04	100.0	99.6	99.3	98.4	97.0	92.0	80.5	50.1	18.2	79.2	992	992
	07	100.0	100.0	99.4	98.3	96.2	91.3	79.5	52.7	16.6	79.5	992	992
	10	100.0	99.6	98.2	94.9	88.8	73.5	50.9	22.3	5.4	69.2	992	992
	13	100.0	99.1	95.6	88.3	73.5	48.0	24.5	11.1	2.3	59.8	992	992
	16	100.0	98.8	96.4	89.6	77.5	51.3	26.5	11.0	3.0	61.1	992	992
JUN	19	100.0	99.6	98.6	97.5	93.4	80.2	55.6	24.4	5.8	71.2	992	992
	22	100.0	99.9	99.2	98.5	96.1	88.7	69.8	37.3	9.0	75.6	991	991
	ALL	100.0	99.6	98.4	95.5	90.0	77.3	58.2	31.8	9.3	71.7	7935	7935
	01	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44.1	7.6
	04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	52.0	11.5
	07	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45.0	9.7
JUL	10	100.0	99.5	97.7	94.9	87.6	68.5	35.9	10.2	2.0	65.2	959	959
	13	100.0	98.7	95.6	87.6	69.0	36.8	15.6	5.7	2.0	56.7	959	959
	16	100.0	99.6	97.7	91.1	74.5	42.5	17.1	5.6	1.1	58.6	957	957
	19	100.0	99.4	98.4	93.7	79.1	50.4	17.7	3.0	6.8	69.8	958	958
	22	100.0	100.0	99.5	97.1	90.2	32.3	5.5	2.0	5.5	75.0	958	958
	ALL	100.0	98.7	96.1	85.1	74.0	53.1	26.6	5.3	1.1	69.9	7667	7667

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN										MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%	95%		
MAY	01	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	07	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	13	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	16	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
JUN	19	100.0	99.9	99.4	98.4	93.7	79.1	50.4	17.7	3.0	69.8	958	958
	22	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	ALL	100.0	99.7	96.1	85.1	74.0	53.1	26.6	5.3	1.1	69.9	7667	7667
	01	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	07	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUG	10	100.0	99.5	97.7	94.9	87.6	68.5	35.9	10.2	2.0	65.2	959	959
	13	100.0	98.7	95.6	87.6	69.0	36.8	15.6	5.7	2.0	56.7	959	959
	16	100.0	99.6	97.7	91.1	74.5	42.5	17.1	5.6	1.1	58.6	957	957
	19	100.0	99.4	98.4	93.7	79.1	50.4	17.7	3.0	6.8	69.8	958	958
	22	100.0	100.0	99.5	97.1	90.2	32.3	5.5	1.1	5.5	75.0	958	958
	ALL	100.0	99.7	96.1	85.1	74.0	53.1	26.6	5.3	1.1	69.9	7667	7667

023239 ALAMEDA CA  
PERIOD OF RECORD : 1955-1986

12 - RELATIVE HUMIDITY

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN					MEAN HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%		
MAY	01	100.0	100.0	100.0	100.0	99.0	96.0	48.9
	04	100.0	100.0	100.0	99.9	99.4	96.2	86.7
	07	100.0	100.0	99.9	99.8	97.9	92.3	75.6
	10	100.0	99.9	99.3	96.3	86.1	62.1	28.1
	13	100.0	99.1	97.3	89.6	71.0	37.1	10.4
	16	100.0	99.6	98.8	93.5	79.3	44.6	17.0
	19	100.0	100.0	99.6	98.3	94.9	83.0	51.8
	22	100.0	100.0	100.0	99.8	98.8	94.4	78.2
	ALL	100.0	99.8	99.4	97.2	90.8	75.7	25.5
							54.1	1935
JUN	01	100.0	100.0	100.0	100.0	99.9	99.8	92.2
	04	100.0	100.0	100.0	100.0	99.7	99.2	69.0
	07	100.0	99.9	99.8	99.7	98.7	95.5	83.5
	10	100.0	99.7	99.1	97.0	90.2	72.9	35.3
	13	100.0	98.7	97.0	91.2	76.2	42.6	10.5
	16	100.0	99.4	98.0	93.1	80.4	51.5	16.0
	19	100.0	99.8	99.4	98.3	95.0	84.2	55.7
	22	100.0	100.0	100.0	99.9	99.4	97.2	86.7
	ALL	100.0	99.7	99.2	97.4	92.4	80.2	59.2
							32.4	1935
JUL	01	100.0	100.0	100.0	100.0	100.0	99.8	95.6
	04	100.0	100.0	100.0	100.0	100.0	97.8	77.2
	07	100.0	100.0	100.0	100.0	99.8	91.4	63.5
	10	100.0	100.0	100.0	99.3	95.9	82.5	47.0
	13	100.0	100.0	98.5	95.0	82.8	49.9	10.9
	16	100.0	100.0	99.1	95.9	87.2	56.8	14.7
	19	100.0	100.0	99.9	99.5	97.5	90.0	65.1
	22	100.0	100.0	100.0	100.0	99.8	99.0	91.3
	ALL	100.0	100.0	99.7	98.7	95.4	94.6	40.1
							19.0	1935
AUG	01	100.0	100.0	100.0	100.0	100.0	99.9	98.7
	04	100.0	100.0	100.0	100.0	100.0	100.0	99.3
	07	100.0	100.0	100.0	100.0	100.0	97.6	72.7
	10	100.0	100.0	99.5	99.6	97.9	87.6	51.3
	13	100.0	100.0	99.7	97.3	87.4	61.3	16.1
	16	100.0	100.0	99.7	99.6	99.6	99.0	95.2

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

12 - RELATIVE HUMIDITY

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN						MEAN HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%		
SEP 01	100.0	99.8	99.5	98.6	97.0	89.6	66.1	82.4
04	100.0	100.0	99.9	99.1	97.8	92.2	70.6	96.0
07	100.0	99.9	99.6	99.5	98.5	97.0	90.0	95.9
10	100.0	99.6	98.9	96.1	89.9	76.2	40.4	96.0
13	100.0	97.8	91.6	83.9	68.9	37.5	8.9	96.0
16	100.0	99.3	96.1	88.0	75.8	50.5	16.1	95.8
19	100.0	99.9	98.4	96.5	92.4	85.2	66.5	95.8
22	100.0	99.9	99.6	99.4	98.3	94.2	83.6	95.9
ALL	100.0	99.5	97.2	95.3	90.2	79.4	60.9	92.8
							39.1	76.73

OCT	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN						MEAN HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%		
01	100.0	99.6	98.9	98.3	96.8	93.1	83.6	80.2
04	100.0	99.9	98.9	97.9	96.1	93.2	85.9	81.0
07	100.0	99.6	99.0	97.9	95.6	92.9	85.2	89.2
10	100.0	99.5	97.6	95.0	88.1	73.4	43.8	89.1
13	100.0	97.2	90.9	81.0	66.7	42.0	14.7	89.2
16	99.8	98.0	92.0	85.9	72.8	50.6	21.3	89.2
19	100.0	99.7	99.1	96.3	90.4	80.5	61.9	89.1
22	100.0	99.7	99.3	98.1	95.8	88.0	76.6	89.1
ALL	100.0	99.2	97.0	93.8	87.8	76.7	59.1	82.3
							35.9	79.32

NOV	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN						MEAN HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%		
01	100.0	99.9	99.4	98.2	96.4	91.2	80.1	80.2
04	100.0	99.9	99.3	98.2	96.2	92.2	82.9	80.4
07	100.0	100.0	99.5	98.3	96.0	91.7	82.8	80.5
10	100.0	99.8	98.4	96.5	91.6	79.2	58.0	80.5
13	100.0	99.6	96.1	89.4	74.9	55.2	31.5	86.1
16	100.0	99.5	96.8	89.3	76.8	58.1	36.0	86.0
19	100.0	100.0	95.1	97.4	92.6	80.2	61.7	86.0
22	100.0	99.9	99.4	98.5	96.2	90.3	74.9	86.0
ALL	100.0	99.8	98.5	95.7	95.1	79.8	63.5	87.4
							37.4	76.78

DEC	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN						MEAN HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%		
01	100.0	99.9	99.6	98.4	96.8	92.4	83.3	80.3
04	100.0	100.0	99.7	98.6	96.6	92.6	95.5	82.5
07	100.0	99.8	99.3	98.2	96.2	92.7	85.2	82.6
10	100.0	99.8	98.7	96.9	92.7	84.9	69.7	82.0
13	100.0	99.6	97.2	93.0	84.7	69.9	50.2	83.8
16	100.0	99.6	97.3	92.3	83.8	69.0	50.2	83.8
19	100.0	99.9	97.0	93.3	85.7	69.0	43.1	86.0
22	100.0	99.9	99.4	97.7	94.0	91.1	79.1	82.2
ALL	100.0	98.6	98.5	92.5	94.8	71.5	76.9	86.9
							46.3	79.30

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

12 - RELATIVE HUMIDITY

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH-HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN						MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
	10%	20%	30%	40%	50%	60%		
ANN	100.0	99.9	99.6	99.2	98.1	95.1	86.1	11683
01	100.0	99.9	99.6	99.0	97.8	95.2	88.1	11684
02	100.0	99.9	99.5	98.8	97.2	94.0	84.9	11682
03	100.0	99.8	98.7	96.5	91.1	77.7	50.0	11686
04	100.0	99.1	96.1	90.0	76.5	50.5	23.2	11687
05	100.0	99.3	97.2	91.7	80.1	55.5	26.4	11675
06	100.0	99.9	99.2	97.9	94.2	84.8	62.4	11673
07	100.0	99.9	99.6	99.0	97.6	93.3	80.8	11673
08	100.0	99.7	96.5	98.7	91.6	80.8	62.7	11673
ALL	100.0	99.7	98.7	96.5	91.6	80.8	37.7	23443

13 - WEATHER CONDITIONS

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT: : 37 47N LONG: : 122 19W ELEV: : 115 FT

**PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)**

MONTH	HOURS (LST)	ISIM			FREEZE			SNOW			SMOKE			BLIZZARD			TOTAL	
		RAIN & E/OR DRIZZLE	RAIN & FREEZE	DRIZZLE	RAIN & E/OR DRIZZLE	RAIN & FREEZE	DRIZZLE	SNOW E/OR SLEET	HAIL	OBS WITH PRECIP	FOG	E/OR HAZE	SMOKE E/OR HAZE	SNOW	W/OBST SAND	NO. OF OBS.		
JAN	01	.0	10.1	.0	.0	.0	.0	10.1	21.8	12.6	.0	.0	31.1	955				
	02		11.3					11.3	26.6	12.0	.0	.0	34.8	955				
	03		11.7					11.8	32.0	14.7	.0	.0	41.6	973				
	04		10.4					10.4	30.0	27.7	.0	.0	52.1	970				
	05		11.4					11.3	17.0	35.1	.0	.0	48.2	964				
	06		11.7					11.7	12.7	30.7	.0	.0	41.0	961				
	07		13.2					13.2	10.7	13.9	.0	.0	23.0	949				
	08		10.8					10.8	16.3	11.8	.0	.0	26.4	955				
	09		11.3					11.3	20.9	19.9	.0	.0	37.3	7682				
ALL		.1																
FEB	01	.0	9.1	.0	.0	.0	.0	9.1	10.9	3.9	.0	.0	14.3	881				
	02		11.2					11.3	16.5	4.8	.0	.0	20.2	881				
	03		12.9					12.7	26.3	12.7	.0	.0	35.2	887				
	04		10.7					10.7	20.7	21.7	.0	.0	38.6	886				
	05		9.9					9.9	9.8	27.6	.0	.0	34.5	885				
	06		10.1					10.1	5.1	19.6	.0	.0	24.0	879				
	07		10.5					10.5	4.7	7.3	.0	.0	11.3	876				
	08		9.5					9.5	5.6	4.8	.0	.0	9.8	876				
ALL		.1							10.5	12.5	12.7	.0	.0	23.5	7054			
MAR	01	.0	10.0	.0	.0	.0	.0	9.9	2.4	1.0	.0	.0	3.0	934				
	02		10.5					10.4	4.2	1.5	.0	.0	5.2	936				
	03		10.2					10.1	6.4	6.4	.0	.0	15.5	941				
	04		7.9					7.8	6.1	13.3	.0	.0	18.4	941				
	05		8.8					8.7	3.0	9.3	.0	.0	11.7	938				
	06		7.9					7.9	2.2	4.6	.0	.0	6.5	937				
	07		10.3					10.3	1.6	2.5	.0	.0	4.1	934				
	08		10.3					10.5	2.0	1.0	.0	.0	3.0	932				
ALL		.1							9.5	4.0	4.9	.0	.0	8.4	7493			
APR	01	.0	6.0	.0	.0	.0	.0	6.0	1.5	.5	.0	.0	1.9	934				
	02		6.2					6.2	1.3	1.0	.0	.0	2.2	935				
	03		7.1					7.1	4.8	6.9	.0	.0	11.3	936				
	04		5.6					5.6	2.6	10.1	.0	.0	12.4	935				
	05		5.6					5.6	1.0	4.3	.0	.0	5.3	930				
	06		4.8					4.8	.9	2.7	.0	.0	3.5	933				
	07		4.8					4.8	1.4	3.5	.0	.0	4.6	932				
	08		4.8					4.8	1.3	6.6	.0	.0	1.5	931				
ALL		.1															5.4	7466

0023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

13 - WEATHER CONDITIONS

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	RAIN		FREEZE		SNOW		HAIL		OBS WITH		SMOKE		BLLOWING		DUST		TOTAL	
		E/OR DRIZZLE	D/DRIZZLE	RAIN & FREEZE	RAIN & FREEZE	E/OR SLEET	D/DRIZZLE	FOG	PRECIP	PRECIP	PRECIP	E/OR HAZE	SAND	E/OR SNOW	W/OBST	E/OR VISION	SAND	NO. OF OBS.	NO. OF OBS.
MAY	01	.0	3.7	.0	.0	.0	.0	.0	3.7	1.8	1.1	.0	.0	2.9	963	.0	3.7	965	
	04	.0	4.0	.0	.0	.0	.0	.0	4.0	3.9	2.6	.0	.0	4.0	964	.0	14.5	964	
	07	.0	4.7	.0	.0	.0	.0	.0	4.7	6.8	8.4	.0	.0	9.8	962	.0	4.1	961	
	10	.0	2.3	.0	.0	.0	.0	.0	2.3	1.8	8.4	.0	.0	3.9	961	.0	3.1	961	
	13	.0	2.0	.0	.0	.0	.0	.0	2.0	.2	2.8	.0	.0	2.8	961	.0	7.4	962	
	16	.0	1.9	.0	.0	.0	.0	.0	1.9	.3	6.0	.0	.0	6.0	962	.0	3.1	961	
	19	.1	1.8	.0	.0	.0	.0	.0	1.8	.5	1.5	.0	.0	1.5	962	.0	7.4	962	
	22	.1	1.8	.0	.0	.0	.0	.0	1.8	1.9	4.0	.0	.0	4.0	962	.0	3.1	962	
ALL		.0	2.8	.0	.0	.0	.0	.0	2.8	2.1	4.2	.0	.0	4.2	7700	.0	6.1	7700	
JUN	01	.0	3.4	.0	.0	.0	.0	.0	3.4	2.5	1.1	.0	.0	3.5	934	.0	4.4	937	
	04	.0	5.5	.0	.0	.0	.0	.0	5.5	3.6	7	.0	.0	7	941	.0	15.5	941	
	07	.0	4.8	.0	.0	.0	.0	.0	4.8	8.7	7.2	.0	.0	8.1	933	.0	3.0	931	
	10	.1	2.0	.0	.0	.0	.0	.0	2.0	1.2	7.1	.0	.0	7.1	931	.0	2.0	931	
	13	.0	0.8	.0	.0	.0	.0	.0	0.8	.3	2.8	.0	.0	2.8	931	.0	0.3	931	
	16	.0	0.8	.0	.0	.0	.0	.0	0.8	.3	1.7	.0	.0	1.7	935	.0	0.3	935	
	19	.0	0.9	.0	.0	.0	.0	.0	0.9	2.1	5.2	.0	.0	5.2	935	.0	7.3	935	
	22	.0	1.8	.0	.0	.0	.0	.0	1.8	1.7	1.3	.0	.0	1.3	932	.0	3.0	932	
ALL		.0	2.5	.0	.0	.0	.0	.0	2.5	2.6	3.4	.0	.0	3.4	7474	.0	5.9	7474	
JUL	01	.0	5.2	.0	.0	.0	.0	.0	5.2	4.8	2.6	.0	.0	2.6	966	.0	7.3	966	
	04	.0	7.4	.0	.0	.0	.0	.0	7.4	6.5	2.3	.0	.0	2.3	964	.0	8.8	964	
	07	.0	6.7	.0	.0	.0	.0	.0	6.7	13.8	10.1	.0	.0	10.1	972	.0	23.4	972	
	10	.1	1.3	.0	.0	.0	.0	.0	1.3	3.7	10.2	.0	.0	10.2	970	.0	13.4	970	
	13	.0	0.4	.0	.0	.0	.0	.0	0.4	.3	2.3	.0	.0	2.3	963	.0	2.4	963	
	16	.0	0.0	.0	.0	.0	.0	.0	0.0	.1	2.6	.0	.0	2.6	961	.0	2.6	961	
	19	.0	0.2	.0	.0	.0	.0	.0	0.2	4.0	6.6	.0	.0	6.6	966	.0	10.1	966	
	22	.1	1.6	.0	.0	.0	.0	.0	1.6	3.8	3.1	.0	.0	3.1	967	.0	6.7	967	
ALL		.0	2.8	.0	.0	.0	.0	.0	2.8	2.8	5.0	.0	.0	5.0	7729	.0	9.4	7729	
AUG	01	.1	6.2	.0	.0	.0	.0	.0	6.2	5.2	1.2	.0	.0	1.2	963	.0	6.2	963	
	04	.2	7.1	.0	.0	.0	.0	.0	7.1	7.6	.9	.0	.0	.9	964	.0	8.2	964	
	07	.2	6.0	.0	.0	.0	.0	.0	6.0	14.8	8.1	.0	.0	8.1	964	.0	22.1	964	
	10	.1	1.5	.0	.0	.0	.0	.0	1.5	2.9	12.3	.0	.0	12.3	963	.0	15.0	963	
	13	.1	0.4	.0	.0	.0	.0	.0	0.4	.1	3.3	.0	.0	3.3	961	.0	3.4	961	
	16	.1	1.0	.0	.0	.0	.0	.0	1.0	4.0	3.0	.0	.0	3.0	961	.0	3.4	961	
	19	.1	1.2	.0	.0	.0	.0	.0	1.2	4.0	4.0	.0	.0	4.0	962	.0	6.7	962	

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

13 - WEATHER CONDITIONS

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	RAIN			FREEZE			SNOW			HAZES			SMOKE			BLLOWING SNOW			DUST OR SAND			TOTAL		
		DRIZZLE	FREEZE	DRIZZLE	RAINE E/OR FREEZE	RAINE E/OR FREEZE	DRIZZLE	SNOW E/OR SLEET	HAUL WITH PRECIP	HAUL WITH PRECIP	FOG	HAZE	FOG	HAZE	FOG	HAZE	FOG	HAZE	FOG	HAZE	NO. OF OBS.	NO. OF OBS.			
SEP	01	0.0	3.6	0.0	0.0	0.0	0.0	3.6	4.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4.9	4.9	0.0	0.0	7.6	7.6	934	932	932
	04	0.0	5.1	0.0	0.0	0.0	0.0	5.7	6.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	24.1	24.1	0.0	0.0	31.3	31.3	938	935	935
	07	0.0	3.9	0.0	0.0	0.0	0.0	3.9	14.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0	26.0	26.0	0.0	0.0	37.9	37.9	935	935	935
	10	0.0	2.2	0.0	0.0	0.0	0.0	2.2	5.7	21.1	0.0	0.0	0.0	0.0	0.0	0.0	13.9	13.9	0.0	0.0	28.7	28.7	932	932	932
	13	0.0	1.4	0.0	0.0	0.0	0.0	1.4	6.6	13.5	0.0	0.0	0.0	0.0	0.0	0.0	10.5	10.5	0.0	0.0	20.5	20.5	929	929	929
	16	0.1	1.4	0.0	0.0	0.0	0.0	1.4	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19	0.0	1.4	0.0	0.0	0.0	0.0	1.4	3.4	5.5	0.0	0.0	0.0	0.0	0.0	0.0	8.5	8.5	0.0	0.0	19.9	19.9	931	931	931
	22	0.0	2.0	0.0	0.0	0.0	0.0	2.0	1.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4	0.0	0.0	12.6	12.6	7462	7462	7462
	ALL	0.0	2.7	0.0	0.0	0.0	0.0	2.7	4.7	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCT	01	0.0	3.3	0.0	0.0	0.0	0.0	3.3	6.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	10.9	10.9	0.0	0.0	13.7	13.7	936	936	936
	04	0.0	4.5	0.0	0.0	0.0	0.0	4.4	4.4	5.1	0.0	0.0	0.0	0.0	0.0	0.0	31.3	31.3	0.0	0.0	37.9	37.9	946	946	946
	07	0.0	4.8	0.0	0.0	0.0	0.0	4.8	16.7	16.2	0.0	0.0	0.0	0.0	0.0	0.0	40.4	40.4	0.0	0.0	47.2	47.2	941	941	941
	10	0.0	3.4	0.0	0.0	0.0	0.0	3.4	11.5	31.2	0.0	0.0	0.0	0.0	0.0	0.0	28.7	28.7	0.0	0.0	36.7	36.7	936	936	936
	13	0.1	3.3	0.0	0.0	0.0	0.0	3.3	3.5	26.1	0.0	0.0	0.0	0.0	0.0	0.0	19.9	19.9	0.0	0.0	28.7	28.7	934	934	934
	16	0.1	2.5	0.0	0.0	0.0	0.0	2.5	1.8	18.5	0.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0	0.0	0.0	20.5	20.5	935	935	935
	19	0.0	3.4	0.0	0.0	0.0	0.0	3.4	2.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0	0.0	0.0	20.5	20.5	935	935	935
	22	0.1	3.2	0.0	0.0	0.0	0.0	3.2	4.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	9.4	9.4	0.0	0.0	20.5	20.5	933	933	933
	ALL	0.0	3.6	0.0	0.0	0.0	0.0	3.6	7.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0	20.7	20.7	0.0	0.0	29.9	29.9	7305	7305	7305
NOV	01	0.1	7.3	0.0	0.0	0.0	0.0	7.3	11.1	11.1	0.0	0.0	0.0	0.0	0.0	0.0	19.9	19.9	0.0	0.0	24.3	24.3	915	915	915
	04	0.0	9.5	0.0	0.0	0.0	0.0	9.5	15.3	11.1	0.0	0.0	0.0	0.0	0.0	0.0	42.9	42.9	0.0	0.0	47.2	47.2	914	914	914
	07	0.0	9.3	0.0	0.0	0.0	0.0	9.2	24.4	23.2	0.0	0.0	0.0	0.0	0.0	0.0	47.2	47.2	0.0	0.0	51.4	51.4	914	914	914
	10	0.0	8.6	0.0	0.0	0.0	0.0	8.6	16.8	34.4	0.0	0.0	0.0	0.0	0.0	0.0	42.9	42.9	0.0	0.0	55.0	55.0	914	914	914
	13	0.0	8.1	0.0	0.0	0.0	0.0	8.1	8.3	36.1	0.0	0.0	0.0	0.0	0.0	0.0	31.9	31.9	0.0	0.0	45.6	45.6	905	905	905
	16	0.0	8.4	0.0	0.0	0.0	0.0	8.4	6.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	14.9	14.9	0.0	0.0	27.0	27.0	905	905	905
	19	0.0	8.5	0.0	0.0	0.0	0.0	8.5	4.3	11.1	0.0	0.0	0.0	0.0	0.0	0.0	14.9	14.9	0.0	0.0	29.7	29.7	943	943	943
	22	0.0	8.4	0.0	0.0	0.0	0.0	8.4	6.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	14.8	14.8	0.0	0.0	41.2	41.2	7591	7591	7591
	ALL	0.0	8.5	0.0	0.0	0.0	0.0	8.5	11.5	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEC	01	0.1	9.6	0.0	0.0	0.0	0.0	9.6	24.1	13.6	0.0	0.0	0.0	0.0	0.0	0.0	35.0	35.0	0.0	0.0	38.9	38.9	947	947	947
	04	0.1	11.8	0.0	0.0	0.0	0.0	11.5	28.0	13.7	0.0	0.0	0.0	0.0	0.0	0.0	47.3	47.3	0.0	0.0	55.0	55.0	953	953	953
	07	0.1	12.4	0.0	0.0	0.0	0.0	12.4	33.1	18.7	0.0	0.0	0.0	0.0	0.0	0.0	51.4	51.4	0.0	0.0	55.0	55.0	949	949	949
	10	0.1	9.9	0.0	0.0	0.0	0.0	9.9	28.9	31.2	0.0	0.0	0.0	0.0	0.0	0.0	47.2	47.2	0.0	0.0	51.4	51.4	949	949	949
	13	0.0	9.2	0.0	0.0	0.0	0.0	9.2	17.2	37.9	0.0	0.0	0.0	0.0	0.0	0.0	45.6	45.6	0.0	0.0	50.0	50.0	950	950	950
	16	0.1	9.8	0.0	0.0	0.0	0.0	9.8	13.4	34.4	0.0	0.0	0.0	0.0	0.0	0.0	45.6	45.6	0.0	0.0	50.0	50.0	950	950	950
	19	0.1	9.8	0.0	0.0	0.0	0.0	9.7	13.5	15.2	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0	0.0	27.0	27.0	945	945	945
	22	0.1	9.4	0.0	0.0	0.0	0.0	9.4	16.3	13.9	0.0	0.0	0.0	0.0	0.0	0.0	29.7	29.7	0.0	0.0	35.0	35.0	943	943	943
	ALL	0.1	10.3	0.0	0.0	0.0	0.0	10.2	22.1	22.4	0.0	0.0	0.0	0.0	0.0	0.0	41.2	41.2	0.0	0.0	41.2	41.2	7591	7591	7591

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

13 - WEATHER CONDITIONS

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS (FROM HOURLY OBSERVATIONS)

MONTH	HOURS 1LST)	FREEZE			RAIN			SNOW			SMOKE			BLLOWING			DUST			TOTAL	
		RAIN & DRIZZLE	FREEZE DRIZZLE	DRIZZLE	RAIN & DRIZZLE	FREEZE DRIZZLE	DRIZZLE	OBS WITH PRECIP	HAIL	OBS WITH PRECIP	FOG	SMOKE & OR HAZE	SNOW & OR HAZE	W/ OR SAND	W/ OR VISION	SAND	W/ OR VISION	NO. OF OBS.	NO. OF OBS.		
JAN	ALL	.1	11.3	.0	.0*	.0	.0	.0	11.3	20.9	19.9	.0	.0	.0	.0	.0	37.3	7682			
FEB	ALL	.1	10.5	.0	.0**	.0	.0	.0	10.5	12.5	12.7	.0	.0	.0	.0	.0	23.5	7054			
MAR	ALL	.1	9.5	.0	.0*	.0	.0	.0	9.4	4.0	4.9	.0	.0	.0	.0	.0	8.4	7493			
APR	ALL	.1	5.6	.0	.0	.0	.0	.0	5.6	1.8	3.7	.0	.0	.0	.0	.0	5.4	7466			
MAY	ALL	.0*	2.8	.0	.0	.0	.0	.0	2.8	2.1	4.2	.0	.0	.0	.0	.0	6.1	7700			
JUN	ALL	.0*	2.5	.0	.0	.0	.0	.0	2.5	2.6	3.4	.0	.0	.0	.0	.0	5.9	7474			
JUL	ALL	.0*	2.8	.0	.0	.0	.0	.0	2.8	4.6	5.0	.0	.0	.0	.0	.0	9.4	7729			
AUG	ALL	.1	3.3	.0	.0	.0	.0	.0	3.3	4.6	4.6	.0	.0	.0	.0	.0	9.2	7702			
SEP	ALL	.0*	2.7	.0	.0	.0	.0	.0	2.7	4.7	8.4	.0	.0	.0	.0	.0	12.6	7462			
OCT	ALL	.0*	3.6	.0	.0	.0	.0	.0	3.6	7.0	14.7	.0	.0	.0	.0	.0	20.7	7496			
NOV	ALL	.0*	8.5	.0	.0	.0	.0	.0	8.5	11.5	20.5	.0	.0	.0	.0	.0	29.9	7305			
DEC	ALL	.1	10.3	.0	.0	.0	.0	.0	10.2	22.1	22.4	.0	.0	.0	.0	.0	41.2	7591			
TOTALS		.1	66.1	.0	.0	.0	.0	.0	6.1	8.2	10.3	.0	.0	.0	.0	.0	17.4	90154			

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN

WIND DIR.	RAIN	SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOURS	SNOW " GRAINS	HAIL " PELLET	THUNDER TORNADO HAIL SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	NO WEATHER
									FOG				
N	2.1	.3	.8	.0	.0	.0	.0	.0	15.0	10.1	22.5	.0	54.9
NNE	4.4	.6	1.1	.0	.0	.0	.0	.0	17.8	8.3	20.6	.0	58.4
NE	8.1	2.0	.0	.0	.0	.0	.0	.7	8.1	4.7	13.4	.0	65.8
ENE	5.7	.8	.0	.0	.0	.0	.0	.0	8.9	1.6	6.5	.0	74.8
E	7.8	2.4	1.7	.0	.0	.3	.0	.0	12.2	2.7	12.9	.0	64.1
ESE	14.5	2.1	1.4	.0	.0	.2	.0	.2	9.5	5.7	13.3	.0	59.2
SE	22.7	4.3	1.1	.0	.0	.0	.0	.3	13.4	3.0	11.3	.0	50.1
SSE	20.2	5.4	1.9	.0	.0	.0	.0	.0	15.2	5.4	11.5	.0	49.2
S	15.6	6.7	2.1	.0	.0	.0	.0	.2	12.4	3.6	16.4	.0	48.3
SSW	12.8	7.8	.9	.0	.0	.0	.0	.0	6.4	4.1	16.9	.0	53.0
SW	8.0	10.1	1.6	.0	.0	.0	.0	1.6	11.2	4.8	18.6	.0	50.5
WSW	5.7	3.1	1.0	.0	.0	.0	.0	.5	12.5	1.0	12.5	.0	65.1
W	2.6	3.1	1.0	.0	.0	.0	.0	.0	6.0	3.1	16.2	.0	68.1
NNW	2.8	1.7	.0	.0	.0	.0	.0	.0	4.2	20.7	.0	.0	62.6
NW	1.8	.6	.4	.0	.0	.0	.0	.0	16.6	4.5	29.2	.0	47.6
NNW	1.7	.3	.4	.0	.0	.0	.0	.0	21.2	6.7	29.2	.0	43.6
VAR	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
CLW	2.4	.8	.7	.0	.0	.0	.0	.0	20.2	7.2	18.7	.0	53.0
TOTALS	602	193	74	0	0	2	0	9	1165	443	1525	0	4241
2 TOTAL	7.6	2.4	.9	.0	.0	.0*	.0	.1	14.7	5.6	19.2	.0	53.0

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7935

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
 VERSUS  
 WEATHER CONDITIONS  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : FEB

WIND DIR.	RAIN	SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOWERS	SNOW " GRAINS	HAIL " PELLET	THUNDER SMALL TORNADO	FUG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	NO SAND DUST	WEATHER
N	.9	.2	.8	.0	.0	.0	.0	.0	9.2	4.3	13.7	.0	.0	73.0
NNE	2.4	.0	.0	.0	.0	.0	.0	.0	5.5	6.2	9.7	.0	.0	77.6
NE	1.2	1.2	1.2	.0	.0	.0	.0	.0	5.9	7.1	5.9	.0	.0	78.6
ENE	3.4	3.4	.0	.0	.0	1.7	.0	.0	3.4	3.4	3.4	.0	.0	81.0
E	7.6	4.2	1.7	.0	.0	.0	.0	.0	5.9	4.2	11.0	.0	.0	67.4
ESE	10.8	3.7	1.2	.0	.0	.0	.0	.0	7.7	3.1	5.6	.0	.0	71.8
SE	23.3	6.7	2.2	.0	.0	.0	.0	.0	10.1	3.0	6.7	.0	.0	54.7
SSE	20.1	8.2	3.0	.0	.0	.0	.0	.0	12.9	2.1	6.8	.0	.0	55.3
S	13.2	5.2	2.7	.0	.0	.0	.0	.0	10.3	2.7	13.8	.0	.0	58.3
SSW	12.5	5.7	2.7	.0	.0	.0	.0	.0	12.2	1.5	12.2	.0	.0	62.4
SW	5.3	5.3	.4	.0	.0	.0	.0	.0	7.8	1.2	12.7	.0	.0	70.1
WSW	4.9	3.8	.3	.0	.0	.0	.0	.0	5.9	1.4	10.8	.0	.0	72.6
W	1.9	2.2	.9	.0	.0	.0	.0	.0	4.2	.6	10.8	.0	.0	78.0
NNW	1.5	1.5	.6	.0	.0	.0	.0	.0	5.0	1.7	15.4	.0	.0	74.5
NW	.8	.3	.0	.0	.0	.0	.0	.0	7.7	2.9	19.3	.0	.0	70.3
NNW	.8	.5	.9	.0	.0	.0	.0	.0	10.0	5.4	17.5	.0	.0	63.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	15.7	4.8	13.1	.0	.0	63.6
CLM	2.9	.2	.8	.0	.0	.0	.0	.0						
TOTALS	462	194	85	.0	.0	.1	.0	.5	654	226	898	.0	.0	9877
# TOTAL	6.4	2.7	1.2	.0	.0	.0*	.0	.1	9.0	3.1	12.4	.0	.0	67.5

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7227

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
 VERSUS  
 WEATHER CONDITIONS  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : MAR

WIND DIR.	RAIN	SHOWERS	DRIZZLE	FREEZE	SLEET	SNOW	HAIL	THUNDER	ICE	NO WEATHER					
										FOG	ICE FOG	SMOKE	BLOWING	BLOWING	
										FOG	GROUND FOG	HAZE	SNOW	SAND	DUST
N	.9	1.1	.2	.0	.0	.0	.0	.0	.2	2.2	.4	3.3	.0	.0	86.0
NNE	2.2	2.3	1.5	.0	.0	.0	.0	.0	.0	3.7	2.2	.0	.0	.0	86.8
NE	9.6	.0	.0	.0	.0	.0	.0	.0	.0	4.1	.0	.0	.0	.0	79.5
ENE	7.5	7.5	1.9	.0	.0	.0	.0	.0	1.9	5.7	1.9	3.8	.0	.0	69.8
E	5.5	2.8	.9	.0	.0	.0	.0	.0	.0	2.8	.0	1.4	.0	.0	84.4
ESE	12.5	5.1	1.9	.0	.0	.0	.0	.0	.0	6.1	1.6	3.2	.0	.0	70.5
SE	15.7	7.8	2.1	.0	.0	.0	.0	.0	.0	4.3	.5	5.0	.0	.0	66.3
SSE	18.4	7.2	2.9	.0	.0	.0	.0	.0	.0	7.3	.6	6.1	.0	.0	62.0
S	13.5	9.7	1.8	.0	.0	.0	.0	.0	.0	5.3	.6	4.6	.0	.0	65.4
SSW	7.8	6.5	2.0	.0	.0	.0	.0	.0	.0	3.7	.0	3.4	.0	.0	73.8
SW	4.4	4.1	2.1	.0	.0	.0	.0	.0	.0	3.9	.5	5.4	.0	.0	75.8
WSW	2.7	3.8	1.3	.0	.0	.0	.0	.0	.0	2.4	.4	5.1	.0	.0	76.9
W	1.9	1.3	.6	.0	.0	.0	.1	.1	.1	4.1	.0	.0	.0	.0	84.7
NNW	.8	1.8	.2	.0	.0	.0	.0	.0	.0	1.4	.2	4.0	.0	.0	87.2
NW	.6	.6	.2	.0	.0	.0	.0	.0	.0	2.1	.5	6.8	.0	.0	84.4
NNN	1.3	1.1	.2	.0	.0	.0	.2	.0	.0	2.4	1.1	6.5	.0	.0	83.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	1.6	2.2	1.1	.0	.0	.0	.0	.0	.0	5.9	2.7	6.0	.0	.0	76.1
TOTALS	37.7	25.5	8.0	.0	.0	.1	.1	.10	.10	2.53	4.5	3.70	.0	.0	627.8
* TOTAL	4.8	3.2	1.0	.0	.0	.0*	.0*	.1	.1	3.2	.6	4.7	.0	.0	79.1

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7934

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

WIND DIR.	RAIN	SHOWERS	DRIZZLE	FREEZE RAIN	SLEET " SHOWERS	SNOW " GRAINS	HAIL " PELLET	THUNDER TORNADO	TORNADO SQUALLS	FOG	ICE FOG	FOG	BLOWING SNOW	SMOKE	BLOWING HAZE	NO SAND	WEATHER DUST
N	•0	•3	•0	•0	•0	•0	•0	•0	•0	•3	•0	4.5	•0	•0	•0	•0	91.2
NNE	2.7	1.4	•0	•0	•0	•0	•0	•0	•0	1.4	•0	•0	•0	•0	•0	•0	93.2
NE	2.1	•0	•0	•0	•0	•0	•0	•0	•0	2.1	•0	10.6	•0	•0	•0	•0	85.1
E NE	•0	3.6	•0	•0	•0	•0	•0	•0	•0	•0	3.6	•0	•0	•0	•0	•0	89.3
E	2.9	2.9	•0	•0	•0	•0	•0	•0	•0	•7	•0	2.2	•0	•0	•0	•0	91.3
ESE	4.5	3.5	1.0	•0	•0	•0	•0	•0	•0	2.5	•0	2.0	•0	•0	•0	•0	87.6
SE	12.9	5.6	•9	•0	•0	•0	•0	•0	•0	2.1	•0	3.4	•0	•0	•0	•0	77.7
SSE	11.5	2.4	1.6	•0	•0	•0	•0	•0	•0	4.5	•0	3.3	•0	•0	•0	•0	74.2
S	6.8	8.8	1.3	•0	•0	•0	•0	•0	•0	2.5	•0	5.3	•0	•0	•0	•0	76.1
SSW	5.4	6.3	•9	•0	•0	•0	•0	•0	•0	3.9	•0	4.5	•0	•0	•0	•0	80.1
SW	3.3	4.0	•9	•0	•0	•0	•0	•0	•0	2.0	•2	3.1	•0	•0	•0	•0	85.5
WSW	1.4	2.2	1.1	•0	•0	•0	•0	•0	•0	2.8	•0	4.0	•0	•0	•0	•0	87.0
W	•7	1.2	•6	•0	•0	•0	•0	•0	•0	1.2	•1	2.5	•0	•0	•0	•0	90.2
WNW	•7	1.0	•2	•0	•0	•0	•0	•0	•0	1.2	•2	2.7	•0	•0	•0	•0	92.0
NW	•7	1.2	•2	•0	•0	•0	•0	•0	•0	•9	•0	6.3	•0	•0	•0	•0	88.6
NNW	1.8	•8	•0	•0	•0	•0	•0	•0	•0	•5	•0	3.6	•0	•0	•0	•0	89.0
VAR	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0
CLM	1.5	•7	•0	•0	•0	•0	•0	•0	•0	1.5	•0	5.3	•0	•0	•0	•0	87.3
TOTALS	183	189	43	•0	•0	•0	4	129	5	277	•0	•0	•0	•0	•0	•0	6714
% TOTAL	2.4	2.5	•6	•0	•0	•0	•1	1.7	•1	3.6	•0	•0	•0	•0	•0	•0	87.4

TOTAL NUMBER OF OBSERVATIONS : 7680

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

C2323 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : MAY

WIND DIR.	RAIN SHOWERS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWERS ICE	SNOW " GRAINS PELLET	HAIL HAIL	THUNDER TORNADO SQUALLS	ICE FOG	FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND DUST	NO WEATHER
N	1.2	.5	.6	.6	.0	.0	.0	1.2	.6	3.5	.0	.0	92.4
NE	.0	.3	.0	.0	.0	.0	.0	2.9	.0	2.9	.0	.0	94.3
NF	5.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93.3
E'E	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	90.9
E'	3.7	1.9	.3	.0	.0	.0	.0	.0	1.9	3.7	.0	.0	90.7
ESE	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	98.7
SE	.9	2.6	.0	.0	.0	.0	.0	.0	.0	6.1	.0	.0	88.6
SSE	2.7	.0	1.6	.0	.0	.0	.0	.0	.0	1.8	.0	.0	82.4
S	3.5	2.7	.1	.0	.0	.0	.0	2.7	.0	3.8	.0	.0	85.8
SSW	2.6	2.0	1.2	.0	.0	.0	.0	3.5	.3	4.6	.0	.0	83.9
SW	1.6	1.7	2.4	.0	.0	.0	.0	3.9	.1	5.7	.0	.0	83.6
WSW	.4	.8	2.7	.0	.0	.0	.0	2.7	.2	4.3	.0	.0	85.8
W	.5	.2	1.2	.0	.0	.0	.0	1.6	.1	3.3	.0	.0	89.7
WNW	.2	.2	.5	.0	.0	.0	.0	.0	.0	3.6	.0	.0	94.5
NNW	1.2	.5	.0	.0	.0	.0	.0	.0	.0	5.6	.0	.0	91.3
NUU	.0	.1	.0	.0	.0	.0	.0	.0	.0	5.7	.0	.0	92.5
VAF	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CW	.0	.0	.0	.0	.0	.0	.0	2.3	.0	6.3	.0	.0	88.6
TOTALS	6.7	4.7	9.9	0	0	2	1.45	1.0	326	0	0	0	706.0
% TOTAL	.8	.6	1.02	.0	.0	.0*	1.9	.1	4.1	.0	.0	.0	89.0

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7935

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN

WIND DIR.	RAIN SHOWERS	DRIZZLE	FREEZE PAIN	FREEZE ICE	SLEET " SHOWERS	SNOW " GRAINS	HAIL " FELLET	THUNDER SMALL TORNADO SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW DUST	NO WEATHER
N	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	94.9
NNE	.6	.3	.6	.0	.0	.0	.0	.0	.4	.4	.0	.0	89.7
NNW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	6.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93.9
ESE	3.2	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	95.2
SF	3.3	1.7	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	86.7
SSE	2.1	2.1	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	89.6
S	1.3	.8	2.1	.0	.0	.0	.0	.0	3.0	.0	.0	.0	89.5
SSW	.4	1.1	3.0	.0	.0	.0	.0	.0	3.8	.0	.0	.0	89.0
SW	.3	.6	3.3	.0	.0	.0	.0	.0	3.2	.3	.0	.0	86.1
WSW	.2	.2	2.9	.0	.0	.0	.0	.0	2.7	.0	.0	.0	89.0
W	.2	.1	1.6	.0	.0	.0	.0	.0	2.0	.1	.0	.0	90.8
WNW	.1	.1	.9	.0	.0	.0	.0	.0	2.1	.1	.0	.0	90.6
WW	.0	.5	.7	.0	.0	.0	.0	.0	1.0	.0	.0	.0	85.6
NNW	.7	.0	.7	.0	.0	.0	.0	.0	2.0	.0	.0	.0	88.7
VAD	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CLW	.6	.0	.3	.0	.0	.0	.0	.0	4.5	.0	.0	.0	88.9
TOTALS	20	23	137	0	0	0	0	1	145	7	254	0	6902
2 TOTAL	.4	.3	1.8	.0	.0	.0	.0	.0*	2.4	.1	3.3	.0	89.9

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7680

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUL

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE	SLEET " SHOWERS	SNOW " GRAINS ICE	HAIL " PELLET	THUNDER TORNADO HAIL	FOG	ICE FOG	SMOKE	BLOWING	NO	
										GROUND FOG	HAZE	SNOW	SAND DUST	WEATHER
N	.0	.3	.0	.0	.0	.0	.0	.0	1.4	.0	7.0	.0	.0	90.1
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	96.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.0	.0	96.6
SSE	.0	.0	.0	.0	.0	.0	.0	.0	2.6	5.3	.0	2.6	.0	86.8
S	.0	1.6	.8	.0	.0	.0	.0	.0	4.7	.8	5.5	.0	.0	85.2
SSW	.0	.0	.0	.0	.0	.0	.0	.0	7.5	.0	8.4	.0	.0	78.3
SW	.0	.2	.5	.0	.0	.0	.0	.0	6.6	.5	7.2	.0	.0	82.0
WSW	.2	.0	.0	.0	.0	.0	.0	.0	5.7	.3	5.4	.0	.0	83.8
W	.1	.2	.2	.0	.0	.0	.0	.0	3.5	.1	3.8	.0	.0	87.9
WNW	.0	.3	.0	.0	.0	.0	.0	.0	2.6	.2	4.1	.0	.0	90.6
NW	.0	.6	.0	.0	.0	.0	.0	.0	2.2	.0	7.5	.0	.0	86.9
NNW	.0	.7	.0	.0	.0	.0	.0	.0	2.9	.0	2.9	.0	.0	91.2
VAP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CLW	.0	.0	.3	.0	.0	.0	.0	.0	6.2	.0	5.6	.0	.0	81.2
TOTALS	5	18	197	0	0	0	0	0	342	17	384	0	0	6858
* TOTAL	.1	.2	2.5	.0	.0	.0	.0	.0	.0*	.2	4.8	.0	.0	86.4

TOTAL NUMBER OF OBSERVATIONS : 7934

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
 VERSUS  
 WEATHER CONDITIONS  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE	SLEET	SNOW " SHOWERS	GRAINS " PELLET	HAIL TOPNADO HAIR SQUALLS	ICE FOG GROUND FOG	ICE FOG HAZE	SMOKE	BLOWING SNOW	SAND DUST	NO WEATHER
					RAIN									
N	4.5	3.0	1.5	•0	•0	•0	•0	•0	4.5	1.5	4.5	•0	•0	83.3
NNW	6.3	•0	•0	•0	•0	•0	•0	•0	•0	12.5	•0	•0	•0	81.3
NE	•0	7.7	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	92.3
ENE	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	100.0
E	•0	•0	•0	•0	•0	•0	•0	•0	4.5	•0	•0	•0	•0	90.9
ESE	•0	•0	•0	•0	•0	•0	•0	•0	•0	2.6	•0	•0	•0	89.7
SE	4.5	•0	•0	•0	•0	•0	•0	•0	2.3	•0	2.3	•0	•0	88.6
SSE	•0	•0	2.0	•0	•0	•0	•0	•0	4.1	•0	6.1	•0	•0	87.8
S	2.3	•0	1.1	•0	•0	•0	•0	•0	3.4	1.1	8.6	•0	•0	80.5
SSW	•0	•0	5.5	•0	•0	•0	•0	•0	5.1	•0	7.8	•0	•0	79.6
SW	•1	•0	6.1	•0	•0	•0	•0	•0	6.5	•4	6.5	•0	•0	79.5
WSW	•2	•0	5.0	•0	•0	•0	•0	•0	6.2	•2	4.8	•0	•0	83.3
W	•2	•2	2.0	•0	•0	•0	•0	•0	3.9	•2	3.4	•0	•0	87.5
WNW	•0	•1	1.4	•0	•0	•0	•0	•0	3.1	•1	3.8	•0	•0	90.8
NW	•3	•6	•3	•0	•0	•0	•0	•0	1.8	•3	7.3	•0	•0	88.3
NNW	•6	•0	•0	•0	•0	•0	•0	•0	3.1	•8	7.8	•0	•0	86.0
VWR	•2	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0	•0
CLW	•8	•3	•3	•0	•0	•0	•0	•0	6.2	•0	3.6	•0	•0	84.6
TOTALS	29	13	21n	0	0	0	9	351	21	358	0	0	0	6813
* TOTAL	•4	•2	2.7	0	0	0	•1	4.4	•3	4.5	•0	•0	•0	85.8

TOTAL NUMBER OF OBSERVATIONS : 7936

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

C23239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : SEP

WIND DIR.	RAIN	SHOWERS	DRIZZLE	FREEZE	RAIN	" SHOWERS	SLEET	SNOW	GRAINS	" PELLET	HAIL	THUNDER	SMALL TORNADO	HAIL SQUALLS	FOG	ICE FOG	GROUND FOG	SMOKE HAZE	BLOWING SNOW	NO SAND DUST	WEATHER
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	4	7.3	0	0	87.1	
NNE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84.2	
NE	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	6.7	0	0	0	0	86.7	
ENE	16.7	0	0	0	0	0	0	0	0	0	0	0	0	0	5.6	0	0	0	0	77.8	
E	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	2.6	0	0	0	0	88.5	
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.7	0	0	0	0	85.7	
SE	5.8	1.9	3.9	0	0	0	0	0	0	0	0	0	0	0	4.9	1.0	10.7	0	0	72.8	
SSE	7.1	2.4	2.4	0	0	0	0	0	0	0	0	0	0	0	5.9	0	7.1	0	0	81.2	
S	5.2	2.9	2.4	0	0	0	0	0	0	0	0	0	0	0	4.8	0	13.3	0	0	72.4	
SSW	4	1.3	3.5	0	0	0	0	0	0	0	0	0	0	0	4.3	0	6.1	0	0	81.4	
SW	4	4	4.7	0	0	0	0	0	0	0	0	0	0	0	5.5	0	6.8	0	0	80.0	
WSW	3	3	3	0	0	0	0	0	0	0	0	0	0	0	5.1	0	8.0	0	0	81.7	
W	1	3	1.6	0	0	0	0	0	0	0	0	0	0	0	3.5	0	6.3	0	0	86.3	
NNW	0	4	4	0	0	0	0	0	0	0	0	0	0	0	5.0	0	10.4	0	0	81.3	
NNW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.7	0	14.9	0	0	79.9	
NNW	4	4	2	0	0	0	0	0	0	0	0	0	0	0	2.2	0	14.8	0	0	80.1	
VAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CLM	1	4	6	0	0	0	0	0	0	0	0	0	0	0	6.7	0	6.3	0	0	85.0	
TOTALS	38	36	429	0	0	0	0	0	0	0	1	351	20	624	0	0	0	0	6393		
% TOTAL	.5	.5	1.7	0	0	0	0	0	0	0	0	0	0	0	4.3	0	8.1	0	0	83.3	

TOTAL NUMBER OF OBSERVATIONS : 7677

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE	RAIN FREEZE	SLEET ICE	SNOW " SHOWERS	GRAINS "	PELLET	HAIL	THUNDER	SMALL TORNADO	HAIL SQUALLS	FOG	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	BLOWING SAND	NO DUST WEATHER
N	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	1.2	11.4	.0	.0	79.4
NNE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.7	4.8	.0	.0	89.1
NE	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	1.0	8.1	.0	.0	81.8
ENE	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	4.1	0.0	.0	.0	85.7
E	5.0	1.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.6	6.1	.0	.0	77.7
ESE	5.2	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	1.0	5.5	.0	.0	79.0
SE	12.4	2.5	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	1.2	6.2	.0	.0	71.1
SSE	10.4	3.8	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	4.0	13.2	.0	.0	64.3
S	7.7	5.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	.6	13.0	.0	.0	64.7
SSW	2.3	4.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	.5	12.8	.0	.0	71.7
SW	3.0	2.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.2	.6	10.5	.0	.0	71.5
WSW	1.0	.9	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	.5	12.1	.0	.0	70.3
W	.5	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	.2	13.2	.0	.0	75.7
WNW	.4	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	1.4	15.7	.0	.0	74.2
NW	.4	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.9	25.1	.0	.0	65.5
NNW	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	1.0	23.0	.0	.0	68.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0.0
CLM	.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	2.1	14.7	.0	.0	67.2
TOTALS	144	86	42	0	0	0	0	0	0	0	0	0	0	4.57	.62	10.98	0	0	57.55
* TOTAL	1.8	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	13.8	0	.0	.0	72.5

TOTAL NUMBER OF OBSERVATIONS : 7935

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
 VERSUS  
 WEATHER CONDITIONS  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 MONTH : NOV

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE	SLEET	RAIN " SHOWERS	FREEZE ICE	SNOW	" GRAINS	" PELLET	HAIL	THUNDER	SMALL TORNADO	NO SQUALLS	ICE	FOG	SMOKE	BLOWING HAZE	SNOW	NO WEATHER	DUST
								• 3	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
N	1.7	• 2	• 0	• 3	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
NNE	2.2	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
NE	6.0	2.7	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
ENE	6.7	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
E	5.9	• 7	1.0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
ESE	12.7	2.2	1.2	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
SE	17.2	2.4	3.3	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
SSE	15.7	4.4	2.8	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
S	11.0	6.6	3.5	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
SSW	7.9	4.4	1.5	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
SW	3.5	3.5	2.5	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
WSW	4.8	5.1	1.1	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
W	1.6	2.3	• 5	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
WNW	1.1	• 8	• 5	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
NNW	• 6	• 8	• 2	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
NNW	1.2	• 3	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
VAR	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
CLM	1.5	• 2	• 4	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0	• 0
TOTALS	40.1	14.1	8.0	0	0	0	0	0	0	0	0	1	624	219	1496	0	0	0	4734	0	61.6
* TOTAL	5.2	1.8	1.0	0	0	0	0	0	0	0	0	0*	8.1	2.9	19.5	0	0	0	0	0	0

NOTES : \* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 7679

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMFDA, CA  
PERIOD OF RECORD : 1955-1986

WIND DIR.	RAIN	PAIN SHOWRS	DRIZZLE	FREEZE RAIN FREEZE	SLEET " SHOWRS ICE	SNOW " GRAINS " PELLET	HAIL	THUNDER TORNADO HAIL	ICE FOG GROUND FOG	SMOKE HAZE	BLOWING SNOW	NO SAND DUST	WEATHER		
N	3.3	.1	1.0	.0	.0	.0	.0	.0	13.8	6.3	18.3	.0	.3	58.5	
NNE	4.6	2.0	.5	.0	.0	.0	.0	.0	12.2	3.6	18.4	.0	.0	57.7	
NE	9.8	.8	.8	.0	.0	.0	.0	.0	6.8	3.0	12.0	.0	.8	69.2	
ENE	1.3	.6	1.2	.0	.0	.0	.0	.0	10.7	3.8	15.7	.0	.0	62.9	
E	5.4	.9	.6	.0	.0	.0	.0	.0	11.4	4.7	17.4	.0	.0	59.3	
ESE	7.3	2.0	2.3	.0	.0	.0	.0	.0	3	15.6	4.8	13.6	.0	.0	58.9
SE	17.4	3.4	3.1	.0	.0	.0	.0	.0	4	16.2	4.2	12.7	.0	.0	48.6
SSE	17.2	3.4	3.0	.0	.0	.0	.0	.0	10.0	4.0	11.2	.0	.0	52.3	
S	15.3	3.9	2.0	.0	.0	.0	.0	.0	15.5	3.3	22.9	.0	.0	45.4	
SSW	8.5	1.1	4.0	.0	.0	.0	.0	.0	14.2	3.4	18.8	.0	.0	54.5	
SW	13.2	2.0	3.3	.0	.0	.0	.0	.0	17.9	3.3	24.5	.0	.0	44.4	
WSW	6.0	6.6	4.4	.0	.0	.0	.0	.0	15.9	2.2	19.2	.0	.0	50.0	
W	7.0	1.9	1.9	.0	.0	.0	.0	.0	3	6.7	2.7	22.5	.0	.3	59.0
WNW	.9	3.0	.0	.0	.0	.0	.0	.0	6.3	2.1	24.6	.0	.0	61.4	
NNW	1.8	.5	1.0	.0	.0	.0	.0	.0	15.0	6.4	32.7	.0	.0	42.4	
NNW	2.3	.4	.9	.0	.0	.0	.0	.0	18.7	10.0	27.2	.0	.1	42.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CLM	2.8	.1	1.6	.0	.0	.0	.0	.0	21.1	7.0	24.9	.0	.0	45.3	
TOTALS	525	121	124	.0	.0	.0	.0	.0	1242	434	1697	.0	.5	4020	
% TOTAL	6.6	1.5	1.7	.0	.0	.0	.0	.0	15.7	5.5	21.4	.0	.1	50.7	

TOTAL NUMBER OF OBSERVATIONS : 7933

NOTES : \* = PERCENT < .05

14 - PERCENTAGE FREQUENCY OF WIND DIRECTION  
VERSUS  
WEATHER CONDITIONS  
(FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : ANN

WIND DIR.	RAIN	RAIN SHOWERS	DRIZZLE	FREEZE	SLEET	RAIN " SHOWERS	SNOW " ICE	GRAINS " PELLET	HAIL " HAIL	THUNDER TORNADO SQUALLS	FOG	ICE FOG	SMOKE	BLOWING SNOW	NO SAND	WEATHER DUST	
											FOG	GROUND FOG	HAZE	BLOWING SAND	NO WEATHER		
N	1.5	.3	.5	.0	.0	.0	.0	.0*	.0	.0*	7.9	4.3	13.8	.0	*0*	71.8	
NNE	2.5	.8	.4	.0	.1	.0	.0	.0	.0	.0	7.1	3.4	11.1	.0	*0	74.5	
NE	5.4	1.5	.4	.0	.0	.0	.0	.1	.0	.0	4.8	2.7	10.1	.0	*1	75.0	
ENE	4.0	1.7	.5	.0	.0	.0	.2	.0	.0	.0	6.7	2.5	8.8	.0	*0	73.6	
E	5.6	2.0	1.0	.0	.0	.0	.0	.0	.0	.0	7.0	2.2	9.5	.0	*0	72.7	
ESE	9.0	2.5	1.3	.0	.0	.0	.0	.0*	.0	.0	8.1	2.9	8.0	.0	*0	70.2	
SE	17.1	4.3	2.1	.0	.0	.0	.0	.0	.0	.0	10.6	2.5	9.6	.0	*0	58.8	
SSE	15.3	5.3	2.4	.0	.0	.0	.0	.0	.0	.0	11.8	2.2	9.0	.0	*0	60.1	
S	9.9	5.4	2.0	.0	.0	.0	.0	.1	.0	.0	8.1	1.6	12.3	.0	*0	63.6	
SSW	5.0	3.5	2.6	.0	.0	.0	.0	.2	.0	.0	6.2	.8	9.2	.0	*0	73.4	
SW	2.1	1.8	3.4	.0	.0	.0	.0	.1	.0	.0	5.7	.7	7.9	.0	*0	77.9	
WSW	1.1	1.1	2.8	.0	.0	.0	.0	.0*	.0	.0	4.9	.3	6.6	.0	*0	81.2	
W	.7	.6	1.4	.0	.0	.0	.0	.0*	.0	.0	3.0	.3	5.5	.0	*0*	85.7	
WNW	.5	.8	.6	.0	.0	.0	.0	.0*	.0	.0	3.2	.6	8.5	.0	*0	84.0	
NW	.8	.6	.4	.0	.0	.0	.0	.0*	.0	.0	6.0	2.0	18.0	.0	*0	70.8	
NNW	1.3	.4	.4	.0	.0	.0	.0	.0*	.0	.0	9.7	4.1	19.1	.0	*0*	64.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*0	0.0	
CLM	1.6	.4	.7	.0	.0	.0	.0	.0*	.0	.0	11.6	3.5	14.3	.0	*0	67.2	
TOTALS	2963	1313	1316	.0	.0	.0	.0	.0*	.0	.0	53	58.1	1516	9307	.0	5	70645
z TOTAL	3.1	1.4	1.4	.0	.0	.0	.0	.0*	.0	.0	6.3	1.6	10.0	.0	*0*	75.6	

NOTES :  
\* = PERCENT < .05

TOTAL NUMBER OF OBSERVATIONS : 93485

15 - MEANS AND STANDARD DEVIATIONS  
 DRY-BULB TEMPERATURE (DEC F)  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
01	MEAN	47.4	50.7	51.6	52.3	53.7	56.2	57.8	59.4	57.6	53.4	48.7	53.8	
	S.D.	4.614	3.936	3.512	3.466	3.069	3.190	2.813	2.837	3.681	3.522	3.822	4.814	5.184
	TOT OBS	992	904	992	960	991	960	992	960	992	960	960	992	11687
04	MEAN	46.6	49.7	50.6	51.3	52.0	55.6	56.3	57.3	50.7	56.9	52.4	47.8	53.0
	S.D.	4.904	4.117	3.660	3.489	3.037	2.973	2.704	2.807	3.431	3.448	3.996	5.082	5.307
	TOT OBS	991	904	992	960	992	960	992	960	992	959	992	992	11686
07	MEAN	46.0	49.1	50.4	52.6	55.5	58.4	58.8	59.7	56.8	51.8	47.3	53.7	
	S.D.	5.083	4.393	3.785	3.605	3.708	4.159	3.465	3.291	3.488	3.476	4.086	5.183	6.125
	TOT OBS	992	904	992	960	992	960	992	960	992	960	960	992	11688
10	MEAN	49.6	53.3	55.6	58.2	61.4	64.4	64.8	66.6	63.3	56.9	51.1	59.1	
	S.D.	4.353	3.966	4.056	4.705	4.897	5.621	4.858	4.690	5.307	4.666	4.228	4.430	7.272
	TOT OBS	992	904	992	960	992	960	992	960	992	960	960	992	11688
13	MEAN	53.3	57.5	60.1	62.9	65.6	69.1	69.5	70.3	72.4	68.9	61.2	54.7	63.8
	S.D.	4.436	4.491	5.234	6.378	6.323	6.882	5.726	5.337	6.645	6.188	5.429	4.736	8.439
	TOT OBS	992	904	992	960	992	960	992	960	992	959	992	992	11687
16	MEAN	54.1	58.5	60.2	62.1	64.2	67.7	68.5	70.5	74.5	67.6	60.9	54.9	63.2
	S.D.	4.686	4.851	5.673	6.389	5.730	6.229	5.043	4.851	6.633	6.500	5.391	4.956	7.761
	TOT OBS	992	903	992	960	992	960	992	960	992	959	960	991	11685
19	MEAN	50.5	54.0	54.9	56.0	58.0	61.4	61.6	62.8	60.9	56.4	51.3	57.5	
	S.D.	4.183	3.820	4.146	4.713	4.556	5.310	4.299	4.004	5.159	4.664	3.940	4.408	6.047
	TOT OBS	992	902	992	960	992	960	992	960	992	959	960	991	11684
22	MEAN	48.7	52.2	52.9	53.5	54.9	57.4	57.9	58.8	60.4	58.8	54.6	49.7	55.0
	S.D.	4.343	3.652	3.556	3.704	3.276	3.433	3.367	3.102	4.025	3.883	3.690	4.512	5.169
	TOT OBS	992	903	991	960	992	960	992	960	992	959	960	991	11684
ALL	MEAN	49.5	53.1	54.5	56.1	58.3	61.2	61.7	62.3	61.4	55.9	50.7	57.4	
	S.D.	5.363	5.286	5.626	6.325	6.438	6.961	6.405	6.213	7.066	6.494	5.533	5.493	7.659
	TOT OBS	7935	7228	7935	7680	7435	7680	7936	7677	7936	7678	7933	93489	

16 - MEANS AND STANDARD DEVIATIONS  
 WET-BULB TEMPERATURE (DEC F)  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
01	MEAN	44.9	47.8	48.2	48.7	50.4	53.2	54.3	55.4	56.2	54.1	50.0	46.0	50.6
	S.D.	5.003	4.477	3.941	3.810	3.113	2.740	2.375	2.384	2.046	3.576	4.452	5.194	5.234
	TOT OBS	991	904	992	958	991	963	992	992	960	992	960	992	11684
04	MEAN	44.3	46.9	47.4	48.0	49.9	52.8	54.0	55.1	55.9	53.5	49.2	45.3	50.2
	S.D.	5.289	4.696	4.162	3.865	3.189	2.603	2.411	2.413	2.118	3.657	4.604	5.443	5.442
	TOT OBS	990	904	992	959	992	963	992	992	960	992	959	992	11684
07	MEAN	43.8	46.4	47.2	48.9	51.5	54.6	55.3	56.1	56.5	53.5	48.7	44.8	50.6
	S.D.	5.472	4.963	4.276	3.959	3.436	3.085	2.629	2.671	2.939	3.768	4.708	5.510	5.976
	TOT OBS	991	904	992	959	992	963	991	992	959	991	959	992	11682
10	MEAN	46.2	49.1	50.2	51.8	54.3	57.4	58.2	58.9	59.6	56.8	51.9	47.4	53.5
	S.D.	4.710	4.435	4.062	4.070	3.555	3.345	2.955	2.879	3.188	3.798	4.418	4.797	5.947
	TOT OBS	992	904	992	959	992	960	991	992	960	992	961	992	11687
13	MEAN	48.2	51.2	52.2	54.0	56.5	59.4	60.4	61.1	61.4	58.7	53.8	49.3	55.5
	S.D.	4.489	4.461	4.127	4.416	3.713	3.431	2.984	2.804	3.169	3.818	4.451	4.584	5.961
	TOT OBS	992	904	992	959	992	960	991	992	960	992	959	992	11686
16	MEAN	48.7	51.9	52.6	54.0	57.7	58.8	59.8	60.5	60.8	58.2	53.7	49.4	55.4
	S.D.	4.481	4.395	4.124	4.402	3.581	3.272	2.675	2.579	3.089	3.732	4.310	4.659	5.627
	TOT OBS	991	905	992	957	992	959	991	991	958	991	960	990	11675
19	MEAN	46.5	49.8	50.0	50.7	52.7	55.8	56.7	57.2	57.5	55.5	51.7	47.5	52.7
	S.D.	4.538	4.188	3.860	3.921	3.284	3.130	2.600	2.574	2.440	3.416	4.187	4.805	5.173
	TOT OBS	990	902	992	958	992	959	991	991	958	991	960	990	11673
22	MEAN	45.9	48.8	48.9	49.4	51.1	53.6	54.8	55.8	56.6	54.7	50.8	46.6	51.4
	S.D.	4.733	4.209	3.796	3.741	3.114	2.754	2.437	2.483	2.918	3.460	4.217	5.000	5.053
	TOT OBS	990	903	991	958	992	959	991	991	958	991	960	990	11673
ALL	MEAN	46.1	49.0	49.6	50.7	52.8	55.7	56.7	57.5	56.1	55.6	51.2	47.0	52.5
	S.D.	5.130	4.839	4.478	4.571	4.112	3.889	3.556	3.416	3.640	4.130	4.762	5.255	5.904
	TOT OBS	7927	7228	7935	7667	7935	7677	7979	7933	7673	7932	7678	7930	93444

17 - MEANS AND STANDARD DEVIATIONS  
 DEW-POINT TEMPERATURE (DEG F)  
 (FROM HOURLY OBSERVATIONS)

023233 ALAMEDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	HOURS .LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
01	MEAN S.D. TOT OBS	42.1 6.961 035	44.7 6.716 9C4	44.7 5.926 .992	45.3 5.389 .958	47.4 4.154 .991	50.8 3.235 .960	52.3 2.714 .992	53.5 2.559 .960	53.8 3.698 .992	51.2 5.515 .960	46.7 6.701 .992	43.0 7.309 .992	48.0 6.663 11684	
04	MEAN S.D. TOT OBS	41.4 7.502 085	44.0 7.082 9C4	44.0 6.362 992	44.7 5.652 959	47.1 4.309 992	50.6 3.235 960	52.2 2.765 992	53.4 2.551 992	53.6 3.688 960	50.7 5.768 992	46.1 6.867 959	42.4 7.439 992	47.5 6.963 11684	
07	MEAN S.D. TOT OBS	40.9 7.616 035	43.4 7.410 9C4	43.4 6.491 992	45.2 6.020 959	46.0 4.594 992	51.6 3.546 960	53.0 2.828 991	54.2 2.737 992	54.2 3.693 959	50.7 6.041 991	45.6 6.926 959	41.8 7.613 992	47.7 7.400 11682	
10	MEAN S.D. TOT OBS	42.3 7.562 992	44.6 7.498 9C4	44.9 6.935 .992	45.9 6.414 959	48.4 4.886 992	52.2 3.816 960	53.8 3.043 991	54.9 2.751 992	54.7 4.245 960	51.7 6.471 992	47.2 7.170 960	43.3 7.591 992	48.7 7.408 11686	
13	MEAN S.D. TOT OBS	42.8 7.830 992	45.1 7.954 9C4	45.0 7.133 992	46.3 6.680 959	49.1 4.778 992	52.6 3.968 960	54.2 3.119 992	55.1 2.818 992	55.9 3.049 960	50.8 5.049 992	47.1 7.047 992	43.6 7.412 959	48.8 7.778 992	52.7 7.527 11686
16	MEAN S.D. TOT OBS	43.0 8.008 992	45.6 7.590 9C3	45.1 6.632 992	46.6 5.942 958	49.1 4.529 992	52.6 3.713 960	54.1 2.989 992	55.1 2.789 992	55.9 2.032 959	50.8 5.049 992	47.1 6.622 992	43.6 7.349 960	48.8 7.921 991	52.7 7.247 11683
19	MEAN S.D. TOT OBS	43.1 7.046 991	45.5 6.586 902	45.2 6.125 992	45.8 5.323 959	46.0 4.175 992	51.5 3.370 960	53.1 2.722 992	54.0 2.682 992	53.6 3.893 992	51.3 5.261 959	47.4 6.634 992	43.5 7.429 960	48.5 6.589 11682	
22	MEAN S.D. TOT OBS	42.9 6.899 991	45.4 6.271 903	45.0 5.875 991	45.6 5.223 959	47.7 4.133 992	51.0 3.238 960	52.5 2.689 992	53.7 3.666 992	51.3 5.303 959	47.2 6.395 992	43.2 7.384 991	48.3 6.480 11682		
All	MEAN S.D. TOT OBS	42.3 7.470 7950	44.6 7.193 7228	44.8 6.471 7935	45.7 5.876 7670	46.1 4.505 7935	51.6 3.597 7680	53.1 2.977 7934	54.2 2.770 7936	54.0 4.060 7676	51.1 6.040 7935	46.8 6.964 7677	43.1 7.581 7933	48.3 7.063 93469	

## 18 - MEANS AND STANDARD DEVIATIONS

SEA-LEVEL PRESSURE (MB)  
(FROM HOURLY OBSERVATIONS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
01 MEAN	1019.8	1019.0	1017.8	1017.1	1015.6	1014.1	1014.2	1014.0	1013.5	1016.3	1018.7	1020.0	1016.7
01 S.D.	5.829	5.983	5.415	4.123	3.217	2.873	2.462	2.472	3.426	4.982	5.470	4.853	
01 TOT OBS	992	904	992	960	991	960	992	992	960	992	960	992	11687
04 MEAN	1019.8	1018.6	1017.4	1016.7	1015.3	1013.9	1014.0	1013.8	1013.4	1016.1	1018.5	1019.9	1016.4
04 S.D.	5.873	5.985	5.453	4.155	3.224	2.893	2.465	2.489	2.919	3.440	5.025	5.533	4.891
04 TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
07 MEAN	1020.0	1019.0	1018.0	1017.5	1016.1	1014.6	1014.9	1014.7	1014.2	1016.8	1019.0	1020.2	1017.1
07 S.D.	5.935	6.052	5.548	4.203	3.255	2.891	2.463	2.502	2.529	3.477	5.062	5.608	4.840
07 TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
10 MEAN	1021.2	1020.0	1018.9	1018.1	1016.5	1015.1	1015.4	1015.3	1014.9	1017.6	1019.9	1021.4	1017.8
10 S.D.	5.910	6.107	5.568	4.203	3.294	2.907	2.493	2.506	2.930	3.528	5.123	5.640	4.959
10 TOT OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688
13 MEAN	1019.7	1019.6	1018.0	1017.4	1016.0	1014.7	1014.9	1014.7	1013.9	1016.3	1018.5	1019.8	1016.9
13 S.D.	5.789	5.941	5.380	4.092	3.574	2.922	2.496	2.519	2.925	3.437	5.004	5.483	4.732
13 TOT OBS	992	904	992	960	992	960	992	992	960	992	959	992	11687
16 MEAN	1019.0	1017.9	1016.9	1016.4	1015.0	1013.9	1013.7	1013.6	1012.8	1015.4	1017.7	1019.2	1016.0
16 S.D.	5.744	5.871	5.245	4.003	3.240	2.917	2.500	2.496	2.910	3.421	4.938	5.411	4.716
16 TOT OBS	992	902	992	960	992	960	992	992	960	992	960	991	11685
19 MEAN	1019.3	1018.2	1017.0	1016.3	1014.9	1013.7	1013.0	1012.8	1015.7	1018.1	1019.5	1016.0	
19 S.D.	5.770	5.851	5.232	3.923	3.176	2.875	2.476	2.475	2.911	3.481	4.957	5.373	4.803
19 TOT OBS	992	902	992	960	992	960	992	992	959	992	959	991	11683
22 MEAN	1019.8	1018.8	1017.8	1017.1	1015.7	1014.3	1014.4	1014.1	1013.6	1016.4	1018.7	1020.1	1016.7
22 S.D.	5.801	5.933	5.277	3.981	3.181	2.860	2.473	2.490	2.919	3.474	5.007	5.392	4.800
22 TOT OBS	992	903	991	960	992	960	992	992	959	992	960	991	11684
ALL MEAN	1019.8	1018.4	1017.7	1017.1	1015.6	1014.3	1014.4	1014.2	1013.6	1016.3	1018.6	1020.0	1016.7
ALL S.D.	5.861	5.975	5.418	4.126	3.273	2.925	2.537	2.565	2.990	3.519	5.046	5.519	4.857
ALL TOT OBS	7936	7226	7935	7680	7935	7680	7936	7936	7677	7936	7678	7933	93490

19 - MEANS AND STANDARD DEVIATIONS  
 STATION PRESSURE (INCHES OF HG)  
 (FROM HOURLY OBSERVATIONS)

023239 ALAMFDA, CA  
 PERIOD OF RECORD : 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	HOURS (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
01	MEAN	30.085	30.063	30.026	30.008	29.963	29.921	29.919	29.906	29.984	30.056	30.093	29.995	
	S.D.	.171	.173	.159	.119	.093	.081	.068	.082	.099	.142	.159	.140	
	TOT OBS	930	876	930	930	961	930	961	930	930	900	900	930	11169
04	MEAN	30.084	30.052	30.015	29.997	29.955	29.915	29.913	29.901	29.978	30.051	30.091	29.988	
	S.D.	.172	.175	.160	.120	.093	.081	.068	.082	.099	.143	.161	.141	
	TOT OBS	930	876	930	930	961	930	960	961	930	900	900	930	11168
07	MEAN	30.091	30.064	30.032	30.020	29.978	29.937	29.942	29.937	29.988	30.065	30.092	30.006	
	S.D.	.174	.176	.163	.122	.094	.081	.069	.070	.082	.100	.144	.164	
	TOT OBS	930	876	930	930	961	930	961	961	930	900	900	930	11169
10	MEAN	30.126	30.091	30.057	30.039	29.990	29.949	29.957	29.953	29.942	30.022	30.092	30.133	30.028
	S.D.	.174	.179	.163	.122	.096	.082	.070	.070	.083	.102	.147	.165	
	TOT OBS	930	876	930	930	961	930	961	961	930	900	900	930	11169
12	MEAN	30.082	30.061	30.033	30.018	29.975	29.939	29.944	29.937	29.917	29.985	30.050	30.087	30.002
	S.D.	.169	.174	.158	.119	.094	.082	.069	.070	.082	.098	.143	.160	
	TOT OBS	930	876	930	930	961	930	961	961	930	900	900	930	11169
16	MEAN	30.061	30.034	30.000	29.988	29.949	29.916	29.917	29.906	29.886	29.958	30.028	30.068	29.975
	S.D.	.168	.170	.154	.115	.093	.082	.069	.070	.082	.097	.142	.158	
	TOT OBS	930	875	930	929	961	929	960	961	928	900	900	928	11160
19	MEAN	30.070	30.040	30.004	29.985	29.944	29.910	29.899	29.885	29.966	30.038	30.079	29.977	
	S.D.	.170	.172	.153	.113	.091	.080	.069	.069	.082	.098	.142	.156	
	TOT OBS	930	874	930	929	961	929	960	961	928	900	900	928	11159
22	MEAN	30.086	30.057	30.027	30.009	29.967	29.929	29.929	29.919	29.906	29.986	30.056	30.096	29.996
	S.D.	.171	.174	.155	.115	.092	.080	.069	.070	.081	.090	.143	.157	
	TOT OBS	930	875	929	929	961	929	960	961	928	900	900	928	11159
ALL	MEAN	30.1	30.1	30.0	30.0	30.0	29.9	29.9	29.9	29.9	30.0	30.1	30.1	30.0
	S.D.	.172	.175	.159	.119	.094	.082	.071	.072	.084	.101	.144	.161	
	TOT OBS	7440	7040	7439	7437	7688	7437	7688	7688	7434	7200	7434	89322	

## 2C - FLYING WEATHER - PERCENT OF HOURS

023239 ALAMUDA, CA  
PERIOD OF RECORD: 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

## PERCENT OF HOURS WITH 5000 FEET &amp; VISIBILITY LESS THAN 5.00 MILES

HOUR (LST)	CEILING LESS THAN			ANNUAL # YRS									
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
01	39	31	30	24	32	39	48	46	34	29	30	43	35
04	44	39	34	30	41	46	59	57	44	36	35	46	32
07	51	50	38	44	50	63	64	51	41	47	54	47	32
10	55	49	37	27	34	39	41	39	39	39	50	26	32
13	54	42	28	19	15	12	8	9	13	24	29	44	19
16	42	29	21	14	10	9	5	5	7	15	16	21	32
19	31	24	22	16	16	16	18	22	15	10	21	30	21
22	33	25	18	22	27	35	35	24	23	24	36	27	32
ALL	44	36	29	23	26	34	35	29	28	29	34	45	33

## PERCENT OF HOURS WITH 3000 FEET &amp; VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	CEILING LESS THAN			# YRS										
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
01	25	21	22	19	30	38	48	46	33	25	22	28	30	32
04	30	29	25	24	38	45	59	57	43	33	26	31	37	32
07	35	36	29	29	41	49	63	63	48	36	33	38	42	32
10	36	34	26	20	24	32	37	39	31	28	32	39	31	32
13	31	25	17	12	12	11	8	8	9	13	22	31	17	32
16	25	18	13	8	9	8	4	5	5	8	17	24	12	32
19	20	16	16	11	14	16	17	21	14	12	15	19	16	32
22	22	17	18	14	22	26	35	35	23	19	15	23	22	32
ALL	28	25	21	17	24	34	34	34	26	22	23	29	26	32

## PERCENT OF HOURS WITH 1000 FEET &amp; VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	CEILING LESS THAN			# YRS										
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
01	12	8	5	5	12	20	35	34	20	13	8	15	16	32
04	14	11	7	6	15	23	43	43	28	17	12	18	20	32
07	20	17	10	7	15	24	44	45	27	20	20	23	23	32
10	22	17	6	3	4	7	16	18	13	14	17	26	14	32
13	17	9	2	1	1	1	0*	1	1	1	4	10	19	5
16	12	6	2	1	1	1	1	1	1	1	2	6	13	32
19	7	3	3	2	5	7	11	11	9	5	3	7	7	32
22	8	4	3	3	9	14	27	28	15	10	4	10	11	32
ALL	14	9	5	3	8	22	34	34	23	11	10	16	12	32

## 20 - FLYING WEATHER - PERCENT OF HOURS

023239 ALAMEDA, CA  
PERIOD OF RECORD: 1955-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

HOUR (LST)	CEILING LESS THAN											PERCENT OF HOURS WITH 500 FEET & VISIBILITY LESS THAN 1										
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS								
01	4	2	1	1	2	4	9	8	4	2	5	4	32	32								
04	6	5	2	1	2	5	10	6	5	4	7	5	32	32								
07	10	8	3	1	2	4	8	9	5	7	8	9	32	32								
10	6	4	2	0*	0	0	0	0	0*	2	4	8	2	32								
13	3	1	0*	0*	0	0	0	0	0*	0	2	3	1	32								
16	1	0*	0*	0	0	0	0	0	0*	0	1	2	0*	32								
19	2	0*	1	0	0	0	0*	1	0*	1	0*	1	1	32								
22	3	0*	0*	0*	1	2	4	5	2	2	1	3	2	32								
ALL	4	3	1	0*	1	2	4	4	2	2	3	5	3	32								

HOUR (LST)	CEILING LESS THAN											PERCENT OF HOURS WITH 100 FEET & VISIBILITY LESS THAN 1/2										
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS								
01	3	1	0*	0	0	0	0	0	0	0*	0	0*	3	1	32	32						
04	4	3	0*	0	0*	0*	0	0	0	0*	1	2	3	1	32	32						
07	6	5	1	0*	0*	0	0	0	0*	0*	2	3	6	2	32	32						
10	3	3	1	0	0	0	0	0	0*	0*	1	4	1	1	32	32						
13	1	0	0	0	0	0	0	0	0*	0*	1	0*	1	0*	32	32						
16	1	0	0	0	0	0	0	0	0	0	0	0	0	0*	32	32						
19	1	0*	0	0	0	0	0	0	0	0	0	0	1	0*	32	32						
22	1	0	0	0	0	0	0	0	0	0	0	0	1	0*	32	32						
ALL	2	1	0*	0	0*	0	0	0	0*	0*	1	2	1	1	32	32						

NOTE : \* = VALUE &gt; 0 AND &lt; 0.5 PERCENT

## 5 - DAILY TEMPERATURES

## ELEMENT TYPE : MAXIMUM TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>=105	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0*
>=100	.0	.0	.0	.0	.0	.1	.3	.2	.1	.3	.1	.0	.1
>= 95	.0	.0	.0	.0	.2	.6	.3	.2	.2	.9	.2	.0	.2
>= 90	.0	.0	.0	.2	.7	2.2	1.2	.5	.7	.6	.0	.0	.9
>= 85	.0	.0	.1	.7	2.2	5.0	2.8	2.5	10.7	4.4	.1	.0	2.4
>= 80	.0	.0	.5	4.0	6.0	10.6	8.4	8.8	19.8	11.5	.6	.0	5.9
>= 75	.0	.0	.5	3.9	10.2	12.1	20.1	12.1	23.9	36.4	.8	.0	13.1
>= 70	.6	3.8	11.6	20.6	28.0	50.6	58.0	64.4	74.0	53.2	14.5	.7	31.9
>= 65	3.7	16.5	30.3	48.0	67.7	85.6	94.4	94.7	97.2	85.5	37.4	4.6	55.8
>= 60	19.3	50.5	66.2	81.8	94.5	98.6	100.0	99.8	100.0	98.8	74.1	27.4	76.2
>= 55	58.7	87.2	93.2	96.7	99.6	99.9	100.0	100.0	100.0	100.0	96.8	70.7	91.9
>= 50	91.9	98.3	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.6
>= 45	99.1	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9
>= 40	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
>= 35	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	55.6	59.8	62.2	65.1	67.6	70.8	71.2	71.8	74.1	71.0	63.3	56.7	65.8
S.D.	4.725	5.040	5.798	6.719	6.351	6.769	5.470	5.342	7.075	6.586	5.570	4.803	8.409
TOT. OPS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES :  
\* = PERCENT < .05

## 6 - DAILY TEMPERATURES

ELEMENT TYPE : MINIMUM TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>= 70	-	-	-	-	-	-	-	-	-	-	-	-	-
>= 65	-	-	-	-	-	-	-	-	-	-	-	-	-
>= 60	-	-	-	-	-	-	-	-	-	-	-	-	-
>= 55	1.7	4.4	4.2	7.5	16.2	49.4	65.4	77.5	86.7	56.0	15.2	0.0	4.4
>= 50	16.3	33.4	41.7	60.4	87.2	99.3	99.5	99.8	100.0	96.9	62.4	23.7	32.5
>= 45	49.2	75.9	87.9	94.9	99.6	100.0	100.0	99.9	100.0	99.8	93.7	23.7	68.7
>= 40	85.2	96.9	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	91.9	61.9	88.6
>= 35	98.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1	99.1	97.7
>= 30	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0	100.0
>= 25	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	44.4	47.5	48.6	50.1	52.1	54.7	55.5	56.4	57.4	55.1	50.5	45.9	51.6
S.D.	4.846	4.231	3.566	3.215	2.646	2.666	2.393	2.499	2.882	3.152	3.849	4.672	5.424
TOT. OBS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES : \* = PERCENT < .05

## 7 - DAILY TEMPERATURES

ELEMENT TYPE : MEAN TEMPERATURE

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM DAILY OBSERVATIONS)

TEMP (DEG F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
>= 85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0*
>= 80	0.0	0.0	0.0	0.0	0.5	0.5	0.2	0.1	0.8	0.2	0.0	0.0	0.2
>= 75	0.0	0.0	0.0	0.2	0.8	2.5	1.5	0.7	6.3	1.2	0.1	0.0	1.1
>= 70	0.0	0.1	0.2	1.5	3.0	8.1	6.2	7.3	17.6	8.8	0.2	0.0	4.4
>= 65	0.0	0.5	2.5	7.9	11.7	26.3	30.1	44.2	57.3	33.8	4.1	0.0	18.4
>= 60	1.1	7.9	15.9	32.0	52.2	82.4	93.5	94.6	97.9	83.1	28.4	1.9	49.6
>= 55	15.7	43.8	52.9	79.8	95.3	99.8	100.0	99.9	100.0	99.3	73.5	26.0	74.7
>= 50	57.1	87.1	95.7	97.6	99.9	100.0	100.0	100.0	100.0	97.6	70.0	92.1	
>= 45	91.3	98.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	99.9	94.0	98.6	
>= 40	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	
>= 35	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0
>= 30	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN	50.2	53.9	55.7	57.9	60.1	63.0	63.6	64.3	66.0	63.3	57.2	51.5	58.9
S.D.	4.281	4.321	4.074	4.510	4.025	4.319	3.454	3.393	4.439	4.225	4.142	4.281	6.521
TOT. OBS.	1271	1148	1301	1260	1302	1260	1302	1302	1260	1302	1259	1302	15269

NOTES:  
\* = PERCENT < .05

## 8 - DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
PRECIPITATION

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

NONE	TRACE	.01	<=.05	<=.10	<=.25	<=.50	<=1.0	<=2.5	<=5.0	<=10.0	<=20.0	>=20.0	% TOTAL PRECIPITATION OF DAYS WITH AMOUNTS OF OBS			
													NO. OF OBS	MEAN	H.I.	LOW
INCHES																
JAN	59.6	7.9	2.1	5.5	3.3	6.9	6.1	5.7	2.7	.1	.0	.0	32.5	1265	.37	9.04
FEB	59.2	8.9	2.3	5.3	3.8	8.0	6.2	4.8	1.4	.0	.0	.0	31.9	1144	.26	7.18
MAR	58.7	10.9	2.0	6.5	3.3	6.8	6.2	4.6	1.1	.0	.0	.0	30.4	1300	.27	8.04
APR	71.0	10.1	1.4	4.5	3.0	4.3	3.4	1.7	.4	.0	.0	.0	18.8	1253	.12	5.45
MAY	78.9	13.8	1.1	1.9	1.5	1.5	1.0	.2	.1	.0	.0	.0	7.3	1296	.03	3.41
JUN	81.7	15.3	.7	.7	.6	.6	.6	.2	.2	.0	.0	.0	3.0	1257	.01	1.19
JUL	79.3	19.5	.3	.3	.2	.1	.1	.2	.0	.0	.0	.0	1.2	1301	.01	.75
AUG	75.1	22.4	.8	.8	.3	.5	.1	.0	.0	.0	.0	.0	2.5	1300	.001	.88
SEP	81.7	14.1	.5	1.2	1.0	.9	.3	.2	.1	.0	.0	.0	4.2	1260	.02	2.58
OCT	77.6	9.5	1.4	3.9	1.4	2.2	1.9	1.2	.8	.1	.0	.0	12.8	1300	.11	8.18
NOV	66.0	7.9	2.0	4.8	3.2	5.8	5.2	3.3	1.6	.1	.0	.0	26.1	1258	.24	7.86
DEC	62.2	9.1	2.1	5.9	3.2	6.4	5.8	4.5	2.1	.2	.0	.0	30.2	1301	.32	11.06
ANN	70.9	12.5	1.4	3.4	2.1	3.6	3.0	2.2	.8	.0*	.0	.0	16.6	15235	.18	35.47
																6.61

## NOTES :

\*.00T, .0 OR 0.T = ZERO PRECIPITATION • SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED  
 \* = PERCENT <=.05  
 ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

## 9 - DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
SNOW FALL

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	TRACE	.1-.4	<=1.4	<=2.4	<=3.4	<=4.4	<=6.4	<=10.4	<=15.4	<=25.4	<=50.4	>50.4	>E.1	% TOTAL PRECIPITATION NO. OF DAYS WITH OF INCHES)			
														AMOUNTS	OBS	MEAN	HIGH
NONE	TRACE	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
JAN	99.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FEB	99.4	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAR	99.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
APR	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAY	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
JUN	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
JUL	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
AUG	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SEP	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OCT	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NOV	99.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DEC	99.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ANN	99.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

NOTES :  
\* .00T, .0 OR 0.1 = ZERO PRECIPITATION, SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED  
\* PERCENT < .02  
ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

## 10 - DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
SNOW DEPTH

(FROM DAILY OBSERVATIONS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	>120	% TOTAL PRECIPITATION OF DAYS WITH AMOUNTS			TOTAL PRECIPITATION NO. (INCHES)				
														OBS	MEAN	H1	LOW	OBS	MEAN	H1	LOW
JAN	99.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	0.	0.	0.
FEB	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1064	0.	0.	0.
MAR	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1177	0.	0.	0.
APR	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1141	0.	0.	0.
MAY	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	0.	0.	0.
JUN	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1140	0.	0.	0.
JUL	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1177	0.	0.	0.
AUG	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	0.	0.	0.
SEP	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1139	0.	0.	0.
OCT	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1178	0.	0.	0.
NOV	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1142	0.	0.	0.
DEC	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1209	0.	0.	0.
ANN	100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13901	0.	0.	0.

## NOTES :

\* 0.0 = ZERO PRECIPITATION • SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED  
 \* = PERCENT < .05  
 ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS.

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37° 47'N LONG. : 122° 19'W ELEV. : 15 F.L.

MONTH : JAN

	DAY	PRECIPITATION INCHES MM	DATE	SNOWFALL			SNOW DEPTH		
				INCHES MM	DATE	INCHES MM	DATE	INCHES MM	DATE
1	.71	18 1958	.60 0	1986	0	0	1986	0	1986
2	.92	23 1977	.00 0	1986	0	0	1986	0	1986
3	1.11	28 1974	T 1974	1986	J- 0	0	1986	0	1986
4	5.27	134 1982	.00 0	1986	J- 0	0	1986	0	1986
5	1.02	26 1952	.00 0	1986	0	0	1986	0	1986
6	.68	17 1975	.00 0	1986	0	0	1986	0	1986
7	.52	13 1953	.00 0	1986	0	0	1986	0	1986
8	1.58	40 1973	.00 0	1986	0	0	1986	0	1986
9	1.04	26 1973	.00 0	1986	0	0	1986	0	1986
10	.99	25 1950	.00 0	1986	0	0	1986	0	1986
11	1.24	31 1973	T 1973	1954	0	0	1986	0	1986
12	.95	24 1957	T 1971	1971	T 1971	0	1986	0	1986
13	1.14	29 1978	.00 0	1986	0	0	1986	0	1986
14	1.92	49 1956	.00 0	1986	0	0	1986	0	1986
15	1.26	32 1956	.00 0	1986	0	0	1986	0	1986
16	1.59	40 1973	.00 0	1986	0	0	1986	0	1986
17	1.71	43 1950	.00 0	1986	0	0	1986	0	1986
18	1.16	29 1969	.00 0	1986	0	0	1986	0	1986
19	1.12	28 1969	.00 0	1986	0	0	1986	0	1986
20	1.88	48 1967	.00 0	1986	0	0	1986	0	1986
21	2.68	68 1967	T 1967	1962	0	0	1986	0	1986
22	1.49	38 1981	.00 0	1986	0	0	1986	0	1986
23	.92	23 1953	.00 0	1986	0	0	1986	0	1986
24	1.16	29 1959	.00 0	1986	0	0	1986	0	1986
25	1.10	28 1961	.00 0	1986	0	0	1986	0	1986
26	.88	22 1963	.00 0	1986	0	0	1986	0	1986
27	1.26	32 1981	T 1960	1960	0	0	1986	0	1986
28	1.07	27 1947	T 1957	1957	T 1957	0	1957	0	1957
29	1.51	39 1966	.00 0	1986	0	0	1986	0	1986
30	1.08	27 1968	.00 0	1986	0	0	1986	0	1986
31	1.22	31 1963	.00 0	1986	0	0	1986	0	1986
MONTH	5.27	134 1982	T T	1974	T T	1971	T T	1971	

NOTES :

T = TRACE AMOUNTS (&lt;.01 OR &lt;.5 OP &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA - CA

PERIOD OF RECORD : 1945-1986  
LAT. : 37 47N LONG. : 122 19W ELEV. : 15 F.I.

MONTH : FEB	PRECIPITATION INCHES MM DATE			SNOWFALL INCHES MM DATE			SNOW DEPTH INCHES MM DATE		
	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY	DAY
1	.71	18	1960	.00	0	1980	0*	0	1986
2	.61	15	1946	.00	0	1986	0*	0	1986
3	.65	17	1966	.7	1	1972	0*	0	1986
4	1.48	38	1951	.00	0	1986	0*	0	1986
5	1.04	26	1969	.7	1	1970	0*	0	1986
6	1.17	30	1973	.70	0	1986	0*	0	1986
7	.84	21	1983	.00	0	1986	0*	0	1986
8	.85	22	1985	.00	0	1986	0*	0	1986
9	1.43	36	1962	.00	0	1986	0*	0	1986
10	.92	23	1959	.00	0	1986	0*	0	1986
11	1.11	28	1969	.00	0	1986	0*	0	1986
12	1.05	27	1963	.00	0	1986	0*	0	1986
13	1.33	34	1979	.00	0	1986	0*	0	1986
14	1.39	35	1962	.00	0	1986	0*	0	1986
15	1.61	46	1982	.70	0	1986	0*	0	1986
16	.82	21	1980	.7	1984	0*	0	0	1986
17	1.30	33	1986	.00	0	1986	0*	0	1986
18	1.10	35	1986	.00	0	1986	0*	0	1986
19	1.14	29	1980	.00	0	1986	0*	0	1986
20	.9	23	1979	.00	0	1986	0*	0	1986
21	.64	16	1957	.00	0	1986	0*	0	1986
22	.73	19	1956	.7	1979	0*	0	0	1986
23	.75	19	1969	.00	0	1986	0*	0	1986
24	.56	14	1949	.00	0	1986	0*	0	1986
25	1.30	33	1983	.00	0	1986	0*	0	1986
26	.89	23	1955	.7	1953	0*	0	0	1986
27	.76	19	1973	.00	0	1986	0*	0	1986
28	.61	15	1969	1	1951	0*	0	0	1986

NOTES:  
T = TRACF AMOUNTS (<.01, .0P <.5, .0P < 1.0 INCHES)

\* = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0.

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : MAR

	DAY	PRECIPITATION INCHES	MM	DATE	SNOWFALL INCHES	MM	DATE	SNOW DEPTH INCHES	MM	DATE
	1	.67	17	1993	.00	0	1986	0	0	1986
	2	.96	24	1978	.00	0	1986	0	0	1986
	3	.44	11	1947	.00	0	1986	0	0	1986
	4	.78	20	1970	.00	0	1986	0	0	1986
	5	.57	14	1962	.00	0	1986	0	0	1986
	6	.54	14	1962	.00	0	1986	0	0	1986
	7	.90	23	1986	T	1986	T	0	0	1986
	8	1.61	41	1978	.00	0	1986	0	0	1986
	9	.52	13	1986	.00	0	1986	0	0	1986
	10	1.07	27	1986	.00	0	1986	0	0	1986
	11	.63	16	1949	.00	0	1986	0	0	1986
	12	1.34	34	1968	.00	0	1986	0	0	1986
	13	1.25	32	1975	T	1986	T	0	0	1986
	14	1.00	25	1961	.00	0	1986	0	0	1986
	15	1.21	31	1977	T	1986	T	0	0	1986
	16	.98	25	1954	.00	0	1986	0	0	1986
	17	.66	17	1983	.00	0	1986	0	0	1986
	18	.56	14	1953	.00	0	1986	0	0	1986
	19	1.08	27	1949	.00	0	1986	0	0	1986
	20	.94	24	1958	.00	0	1986	0	0	1986
	21	1.02	26	1958	T	1986	T	0	0	1986
	22	.97	24	1945	.00	0	1986	0	0	1986
	23	1.24	31	1958	.00	0	1986	0	0	1986
	24	1.27	31	1950	.00	0	1986	0	0	1986
	25	1.11	28	1945	.00	0	1986	0	0	1986
	26	.74	19	1985	.00	0	1986	0	0	1986
	27	1.61	41	1963	.00	0	1986	0	0	1986
	28	.65	17	1947	.00	0	1986	0	0	1986
	29	.91	23	1982	.00	0	1986	0	0	1986
	30	.96	24	1982	.00	0	1986	0	0	1986
	31	1.67	42	1982	T	1986	T	0	0	1986
MONTH		1.67	42	1982	T	1986	T	0	0	1986

## NOTES :

T = TRACE AMOUNTS ( &lt; .01, OR &lt; .5, OR &lt; 1.0 INCHES )

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : APR

DAY	PRECIPITATION			SNOWFALL			SNOW DEPTH		
	INCHES	MM	DATE	INCHES	MM	DATE	INCHES	MM	DATE
1	1.27	31	1974	.00	0	1986	.0*	0	1986
2	1.25	32	1958	.00	0	1986	.0*	0	1986
3	*44	11	1978+	.00	0	1986	.0*	0	1986
4	*53	13	1980	.00	0	1986	.0*	0	1986
5	*82	21	1962	.00	0	1986	.0*	0	1986
6	1.84	47	1967	.00	0	1986	.0*	0	1986
7	*67	17	1950	.00	0	1986	.0*	0	1986
8	*38	10	1965	.00	0	1986	.0*	0	1986
9	*66	17	1965	.00	0	1986	.0*	0	1986
10	1.47	37	1982	.00	0	1986	.0*	0	1986
11	*46	12	1956	.00	0	1986	.0*	0	1986
12	*C9	2	1982+	.00	0	1986	.0*	0	1986
13	*41	10	1957	.00	0	1986	.0*	0	1986
14	*55	14	1963	.00	0	1986	.0*	0	1986
15	*99	25	1978	.00	0	1986	.0*	0	1986
16	*27	7	1957	.00	0	1986	.0*	0	1986
17	*61	15	1957	.00	0	1986	.0*	0	1986
18	*30	10	1963	.00	0	1986	.0*	0	1986
19	1.19	*22	6 1953	.00	0	1986	.0*	0	1986
20	*39	10	1963	.00	0	1986	.0*	0	1986
21	*41	10	1961	.00	0	1986	.0*	0	1986
22	*21	5	1979	.00	0	1986	.0*	0	1986
23	*64	16	1983	.00	0	1986	.0*	0	1986
24	*39	10	1983	.00	0	1986	.0*	0	1986
25	*82	21	1963	.00	0	1986	.0*	0	1986
26	*82	21	1956	.00	0	1986	.0*	0	1986
27	1.37	34	1953	.00	0	1986	.0*	0	1986
28	*58	15	1951	.00	0	1986	.0*	0	1986
29	*22	6	1948	.00	0	1986	.0*	0	1986
30	*52	13	1953	.00	0	1986	.0*	0	1986
31									
MONTH	1.34	47	1967	.00	0	1986	.0*	0	1986

NOTES :  
 \* = TRACE AMOUNTS (<.01. OR <.5. OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

323239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERIOD OF RECORD : 1945-1986

## MONTH : MAY

DAY	PRECIPITATION INCHES MM	DATE	SNOWFALL INCHES MM DATE			SNOW DEPTH INCHES MM DATE		
			INCHES	MM	DATE	INCHES	MM	DATE
1	.47	12 1950	.00	0	1986	0.	0	1986
2	.36	2 1957*	.00	0	1986	0.	0	1986
3	.56	15 1951	.00	0	1986	0.	0	1986
4	.05	1 1973*	.00	0	1986	0.	0	1986
5	.34	9 1981	.00	0	1986	0.	0	1986
6	.05	1 1979*	.00	0	1986	0.	0	1986
7	.16	4 1952	.00	0	1986	0.	0	1986
8	.33	8 1963	.00	0	1986	0.	0	1986
9	.46	12 1957	.00	0	1986	0.	0	1986
10	.04	1 1963	.00	0	1986	0.	0	1986
11	.17	4 1977	.00	0	1986	0.	0	1986
12	.30	8 1945	.00	0	1986	0.	0	1986
13	.16	4 1945	.00	0	1986	0.	0	1986
14	.32	8 1949*	.00	0	1986	0.	0	1986
15	.1	1 1979*	.00	0	1986	0.	0	1986
16	.1	1 1979*	.00	0	1986	0.	0	1986
17	.20	5 1957	.00	0	1986	0.	0	1986
18	.30	35 1957	.00	0	1986	0.	0	1986
19	.40	10 1961	.00	0	1986	0.	0	1986
20	.66	17 1957	.00	0	1986	0.	0	1986
21	.06	2 1953	.00	0	1986	0.	0	1986
22	.12	3 1953	.00	0	1986	0.	0	1986
23	.25	6 1960	.00	0	1986	0.	0	1986
24	.15	4 1960	.00	0	1986	0.	0	1986
25	.29	7 1946	.00	0	1986	0.	0	1986
26	.10	3 1946	.00	0	1986	0.	0	1986
27	.40	10 1947	.00	0	1986	0.	0	1986
28	.1	1 1985*	.00	0	1986	0.	0	1986
29	.44	11 1948	.00	0	1986	0.	0	1986
30	.06	2 1948	.00	0	1986	0.	0	1986
31	.12	3 1947	.00	0	1986	0.	0	1986
MONTH	1.36	35 1957	.00	0	1986	0.	0	1986

## NOTES :

T = TRACE AMOUNTS (&lt;.001 OR &lt;.5 OF 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

\* THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15.FT  
PERIOD OF RECORD : 1945-1986

MONTH : JUN

DAY	PRECIPITATION			SNOWFALL			SNOW DEPTH		
	INCHES	MM	DATE	INCHES	MM	DATE	INCHES	MM	DATE
1	.06	2	1967	.00	0	1986	0.	0	1986
2	.97	25	1967	.00	0	1986	0.	0	1986
3	1	1985+		.00	0	1986	0.	0	1986
4	.08	2	1947	.00	0	1986	0.	0	1986
5	.16	4	1967	.00	0	1986	0.	0	1986
6	.43	11	1953	.00	0	1986	0.	0	1986
7	.15	4	1947	.00	0	1986	0.	0	1986
8	.57	14	1970	.00	0	1986	0.	0	1986
9	.23	6	1972	.00	0	1986	c.	0	1986
10	.01	0	1948	.00	0	1986	0.	0	1986
11	1	T	1981+	.00	0	1986	0.	0	1986
12	.03	1	1954	.00	0	1986	0.	0	1986
13	1	T	1984+	.00	0	1986	0.	0	1986
14	1	T	1977+	.00	0	1986	0.	0	1986
15	.02	1	1964	.00	0	1986	0.	0	1986
16	1	T	1980+	.00	0	1986	0.	0	1986
17	1	T	1982+	.00	0	1986	0.	0	1986
18	.06	2	1974	.00	0	1986	0.	0	1986
19	1	T	1985+	.00	0	1986	0.	0	1986
20	.02	1	1985	.00	0	1986	0.	0	1986
21	1	T	1982+	.00	0	1986	0.	0	1986
22	1	T	1982+	.00	0	1986	0.	0	1986
23	1	T	1982+	.00	0	1986	0.	0	1986
24	.03	1	1975	.00	0	1986	0.	0	1986
25	1	T	1986+	.00	0	1986	0.	0	1986
26	1	T	1986+	.00	0	1986	n.	0	1986
27	.08	2	1952	.00	0	1986	n.	0	1986
28	.23	6	1952	.00	0	1986	c.	0	1986
29	.05	2	1982	.00	0	1986	0.	0	1986
30	1	T	1982+	.00	0	1986	n.	0	1986
31									
MONTH	.97	25	1967	n.u	0	1986	0.	0	1986

NOTES :  
 T = TRACE AMOUNTS (<.01) OR <.5. OR < 1.0 INCHES!  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 \* THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

PERIOD OF RECORD : 1945-1986

MONTH : JUL

PRECIPITATION  
INCHES MM DATESNOWFALL  
INCHES MM DATESNOW DEPTH  
INCHES MM DATE

DAY	INCHES	MM	DATE	INCHES	MM	DATE	INCHES	MM	DATE
1	.02	1	1980	.00	0	1986	0.	0	1986
2	.10	3	1980	.00	0	1986	0.	0	1986
3	.01	0	1955	.00	0	1986	0.	0	1986
4	T	1	1979+	.00	0	1986	0.	0	1986
5	T	1	1984+	.00	0	1986	0.	0	1986
6	T	1	1981+	.00	0	1986	0.	0	1986
7	T	1	1974+	.00	0	1986	0.	0	1986
8	.75	19	1974	.00	0	1986	0.	0	1986
9	T	1	1975+	.00	0	1986	0.	0	1986
10	T	1	1985+	.00	0	1986	0.	0	1986
11	T	1	1985+	.00	0	1986	0.	0	1986
12	.02	1	1966	.00	0	1986	0.	0	1986
13	T	1	1980+	.00	0	1986	0.	0	1986
14	T	1	1962+	.00	0	1986	0.	0	1986
15	.15	4	1975	.00	0	1986	0.	0	1986
16	T	1	1981+	.00	0	1986	0.	0	1986
17	.31	0	1976	.00	0	1986	0.	0	1986
18	T	1	1985+	.00	0	1986	0.	0	1986
19	T	1	1985+	.00	0	1986	0.	0	1986
20	.06	2	1985	.00	0	1986	0.	0	1986
21	.52	13	1979	.00	0	1986	0.	0	1986
22	T	1	1986+	.00	0	1986	0.	0	1986
23	.01	0	1986	.00	0	1986	0.	0	1986
24	T	1	1983+	.00	0	1986	0.	0	1986
25	.02	1	1954	.00	0	1986	0.	0	1986
26	T	1	1986+	.00	0	1986	0.	0	1986
27	T	1	1985+	.00	0	1986	0.	0	1986
28	T	1	1978+	.00	0	1986	0.	0	1986
29	T	1	1995+	.00	0	1986	0.	0	1986
30	.43	11	1949	.00	0	1986	0.	0	1986
31	.03	1	1949	.00	0	1986	0.	0	1986
MONTH	.75	10	1974	.00	0	1986	0.	0	1986

NOTES :

T = TRACE AMOUNTS (&lt;.01, OR &lt;.5, OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : AUG

DAY	PRECIPITATION INCHES MM	DATE	SNOWFALL INCHES MM DATE			SNOW DEPTH INCHES MM DATE
			INCHES	MM	DATE	
1	1	1 1984+	.00	0	1986	0 1986
2	1	1 1986+	.00	0	1986	0 1986
3	1	1 1986+	.00	0	1986	0 1986
4	.01	1 1978	.00	0	1986	0 1986
5	L	1 1986+	.00	0	1986	0 1986
6	1	1 1986+	.00	0	1986	0 1986
7	T	1 1985+	.00	0	1986	0 1986
8	.02	1 1963+	.00	0	1986	0 1986
9	.07	2 1962	.00	0	1986	0 1986
10	T	1 1986+	.00	0	1986	0 1986
11	.03	1 1965	.00	0	1986	0 1986
12	T	1 1986+	.00	0	1986	0 1986
13	T	1 1986+	.00	0	1986	0 1986
14	.19	5 1976	.00	0	1986	0 1986
15	.21	5 1976	.00	0	1986	0 1986
16	T	1 1986+	.00	0	1986	0 1986
17	.15	4 1976	.00	0	1986	0 1986
18	.32	8 1976	.00	0	1986	0 1986
19	.01	0 1983+	.00	0	1986	0 1986
20	.01	0 1969	.00	0	1986	0 1986
21	.08	2 1968	.00	0	1986	0 1986
22	.01	0 1976	.00	0	1986	0 1986
23	T	1 1986+	.00	0	1986	0 1986
24	.02	1 1959	.00	0	1986	0 1986
25	.01	0 1977+	.00	0	1986	0 1986
26	.02	1 1961+	.00	0	1986	0 1986
27	.06	2 1949	.00	0	1986	0 1986
28	.01	0 1982	.00	0	1986	0 1986
29	.12	3 1951	.00	0	1986	0 1986
30	.14	4 1984	.00	0	1986	0 1986
31	.01	0 1964	.00	0	1986	0 1986
MONTH	.32	8 1976	.00	0	1986	0 1986

## NOTES :

T = TRACE AMOUNTS (&lt;.001 OR &lt;.5 MM &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(P1).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT.: 37 47N LONG.: 122 19W ELEV.: 15 FT  
PERIOD OF RECORD : 1945-1986

MONTH : SEP

DAY	PRECIPITATION INCHES MM	DATE	SNOWFALL		SNOW DEPTH	
			INCHES MM	DATE	INCHES MM	DATE
1	1	1 1985+	0.00	0 1986	0.	0 1986
2	1	1 1985+	0.00	0 1986	0.	0 1986
3	1	1 1982+	0.00	0 1986	0.	0 1986
4	1	1 1986+	0.00	0 1986	0.	0 1986
5	1	1 1986+	0.00	0 1986	0.	0 1986
6	.04	1 1969	0.00	0 1986	0.	0 1986
7	1	1 1986+	0.00	0 1986	0.	0 1986
8	.20	5 1985	0.00	0 1986	0.	0 1986
9	.23	6 1976	0.00	0 1986	0.	0 1986
10	7	7 1980+	0.00	0 1986	0.	0 1986
11	.02	1 1976	0.00	0 1986	0.	0 1986
12	.09	2 1963	0.00	0 1986	0.	0 1986
13	1	1 1985+	0.00	0 1986	0.	0 1986
14	.01	0 1968	0.00	0 1986	0.	0 1986
15	1	1 1977+	0.00	0 1986	0.	0 1986
16	.30	8 1961	0.00	0 1986	0.	0 1986
17	.07	2 1985	0.00	0 1986	0.	0 1986
18	2.53	64 1959	0.00	0 1986	0.	0 1986
19	.75	19 1977	0.00	0 1986	0.	0 1986
20	.21	5 1973	0.00	0 1986	0.	0 1986
21	.01	0 1983	0.00	0 1986	0.	0 1986
22	.11	3 1973	0.00	0 1986	0.	0 1986
23	.26	7 1982	0.00	0 1986	0.	0 1986
24	.12	3 1986	0.00	0 1986	0.	0 1986
25	.48	12 1982	0.00	0 1986	0.	0 1986
26	.51	13 1972	0.00	0 1986	0.	0 1986
27	1.05	27 1957	0.00	0 1986	0.	0 1986
28	.24	6 1962	0.00	0 1986	0.	0 1986
29	.46	12 1983	0.00	0 1986	0.	0 1986
30	.60	15 1983	0.00	0 1986	0.	0 1986
31						
MONTH	2.53	64 1959	.00	0 1986	0.	0 1986

NOTES:  
 \* = TRACE AMOUNTS (<.01. OR <.5. OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA CA LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
 PERIOD OF RECORD : 1945-1986

MONTH : OCT

PRECIPITATION INCHES MM	DAY	DATE	SNOWFALL			SNOW DEPTH		
			INCHES MM	DAILY	INCHES MM	DAILY	INCHES MM	DAILY
1	.37	9 1976	.00	0	1986	0.	0	1986
2	.34	9 1967	.00	0	1986	0.	0	1986
3	.01	0 1946	.00	0	1986	0.	0	1986
4	1	1 1968+	.00	0	1986	0.	0	1986
5	.29	7 1960	.00	0	1986	0.	0	1986
6	.08	2 1973+	.03	0	1986	0.	0	1986
7	.29	7 1973	.00	0	1986	0.	0	1986
8	.17	4 1973	.00	0	1986	0.	0	1986
9	1.19	30 1975	.00	0	1986	0.	0	1986
10	1.38	35 1957	.00	0	1986	0.	0	1986
11	1.92	50 1962	.00	0	1986	0.	0	1986
12	2.36	60 1962	.00	0	1986	0.	0	1986
13	3.54	90 1962	.00	0	1986	0.	0	1986
14	.71	18 1972	.00	0	1986	0.	0	1986
15	1.90	48 1969	.00	0	1986	0.	0	1986
16	1.25	32 1984	.00	0	1986	0.	0	1986
17	.02	1 1986+	.00	0	1986	0.	0	1986
18	.13	3 1953	.00	0	1986	0.	0	1986
19	.26	7 1979	.00	0	1986	0.	0	1986
20	.58	15 1985	.00	0	1986	0.	0	1986
21	.51	13 1970	.00	0	1986	0.	0	1986
22	.67	15 1973	.00	0	1986	0.	0	1986
23	.32	8 1957	.00	0	1986	0.	0	1986
24	.71	18 1951	.00	0	1986	0.	0	1986
25	1.47	37 1982	.04	0	1986	0.	0	1986
26	.38	10 1950	.00	0	1986	0.	0	1986
27	.44	11 1981	.00	0	1986	0.	0	1986
28	.75	19 1981	.00	0	1986	0.	0	1986
29	.62	16 1964	.00	0	1986	0.	0	1986
30	.81	21 1945	.00	0	1986	0.	0	1986
31	.15	4 1974	.00	0	1986	0.	0	1986
MONTH	3.54	90 1962	.00	0	1986	0.	0	1986

NOTES :

\* = TRACE AMOUNTS (&lt;.01. OR &lt;.5. OR &lt; 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

PFRIOD OF RECORD : 1945-1966 LAT. = 37 47N LON

P E R I O D O F R E C O R D : 1945-1966      LAT. : 37 47N    LONG. : 122 19W    ELEV. : 15 FT

## NOTES

$\tau = \text{TRACE AMOUNTS } ((.01, .0R < .5, .0P < 1.0 \text{ INCHES})$

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—SINOMA HIOSU HUNS CUN DUN ——

## 21 - DAILY EXTREME AMOUNTS

023239 ALAMEDA, CA

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PERIOD OF RECORD : 1945-1986

M CNTH : DEC

	PRECIPITATION INCHES . MM.	DAY	DATE	SNOWFALL INCHES . MM.		SNOW DEPTH INCHES . MM . DATE
				INCHES	MM	
1	1.46	37	1951	.00	0	1986
2	.98	25	1970	T	1970	0. 0 1986
3	1.60	41	1950	.00	0	1986
4	.83	21	1945	.00	0	1986
5	2.11	54	1945	.00	0	1986
6	3.69	94	1952	.00	0	1986
7	1.02	26	1952	.00	0	1986
8	.64	16	1955	.00	0	1986
9	1.14	29	1954	.00	0	1986
10	.52	13	1983	.00	0	1986
11	4.47	12	1965	.00	0	1986
12	.39	10	1971	.00	0	1986
13	.53	13	1950	.00	0	1986
14	.56	14	1977	.00	0	1986
15	1.08	27	1962	.00	0	1986
16	.80	20	1962	.00	0	1986
17	.82	21	1977	T	1977	0. 0 1986
18	.44	11	1972	.00	0	1986
19	1.41	36	1952	T	1967	0. 0 1986
20	1.89	48	1969	.00	0	1986
21	1.55	39	1945	.00	0	1986
22	1.86	47	1955	T	1968	0. 0 1986
23	1.62	41	1959	.00	0	1986
24	1.64	42	1983	.00	0	1986
25	.82	21	1979	T	1968	0. 0 1986
26	1.34	34	1973	.00	0	1986
27	3.53	90	1945	.00	0	1986
28	1.55	39	1951	.00	0	1986
29	1.72	44	1981	.00	0	1986
30	.73	19	1976	.00	0	1986
31	.49	12	1954	.00	0	1986
MONTH	3.69	94	1952	T	1974	0. 0 1986

## NOTES :

T = TRACE AMOUNTS (&lt;.01" OR &lt;.5" OR &lt;1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 23 - EXTREME VALUES

PRECIPITATION (INCHES)  
(FROM DAILY OBS.)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	1	MISS	T	MISS	MISS	MISS	MISS	T	MISS	T	MISS
1946	1.47	.61	.74	.02	.29	T	T	PART	PART	T	.09	1.24	.68
1947	PART	PART	.65	.04	.40	.22	T	PART	T	PART	PART	PART	PART
1948	.36	PART	PART	PART	PART	.01	T	T	.01	PART	PART	1.20	PART
1949	.92	.56	1.08	T	.32	T	.43	.06	T	.20	.55	.74	1.08
1950	1.71	.69	1.23	.67	.47	T	T	T	T	1.29	1.23	1.60	1.71
1951	.89	1.48	.69	.58	.59	T	T	.12	T	.71	1.21	1.55	1.55
1952	PART	.46	.92	.21	.16	.23	T	T	T	.05	.66	3.69	PART
1953	.52	T	.56	1.33	.10	.43	T	.10	T	.13	1.01	.04	1.33
1954	.89	.71	.98	.72	.13	.03	.02	.02	T	.08	.66	1.19	1.19
1955	.63	.89	.25	.20	.07	T	.01	T	T	.05	.48	1.86	1.86
1956	1.92	.73	T	.83	.36	.02	T	T	.10	.57	.05	.16	1.92
1957	.95	.64	.43	.61	1.39	.06	T	T	1.05	1.38	.23	.96	1.39
1958	.92	1.15	1.24	1.25	.12	.54	T	T	.08	.05	.04	.68	1.25
1959	1.16	.92	.14	.24	.01	T	T	.02	2.53	T	T	1.62	2.53
1960	.91	.92	-.62	-.25	-.25	T	T	T	T	.29	1.18	.37	1.18
1961	1.10	.24	1.00	.41	.40	T	T	.02	.30	.04	.95	.96	1.10
1962	.54	1.43	.57	.25	T	T	.07	.24	3.54	.34	1.08	3.54	3.54
1963	1.22	1.05	1.61	.98	.33	T	T	.02	.09	.51	1.00	.26	1.61
1964	1.35	.11	.69	.02	.05	.47	T	.01	T	.64	1.97	.67	1.97
1965	.85	.33	.56	.66	T	T	.03	T	.11	.69	1.12	1.12	1.12
1966	1.51	.65	.26	.17	.10	.06	.07	.11	.10	T	.23	.89	1.51
1967	2.68	.16	.75	1.84	.07	.97	T	.01	.02	.34	.30	.50	2.68
1968	1.08	.61	1.34	.37	.07	T	.08	.01	T	.17	1.00	.56	1.34
1969	1.16	1.11	.34	.83	T	.01	T	.04	T	.90	.46	1.89	1.90
1970	1.23	.38	.78	.75	.03	.57	T	.03	T	.51	1.09	.98	1.23
1971	.42	.15	1.06	.29	.05	T	T	.00	T	.03	.45	.78	1.06
1972	.39	.51	.05	.37	T	.23	T	.51	T	.75	1.16	.79	1.75
1973	1.59	1.17	.59	.01	.05	T	T	.08	T	.21	.60	1.79	1.79
1974	1.11	.54	.79	1.23	T	.56	.75	T	T	.34	.22	.86	1.23
1975	.77	.43	1.25	.50	T	.03	.15	.04	T	1.19	.13	.35	1.25
1976	.24	.15	.95	.46	T	.01	.32	.18	T	.37	.54	.73	.95
1977	.92	.27	1.21	.04	.17	T	.01	.75	T	.19	1.67	.83	1.67
1978	1.14	.83	1.61	.99	T	T	T	.01	T	.23	T	.30	1.61
1979	1.85	1.33	.92	.05	T	.52	T	T	T	1.38	1.34	1.54	1.85
1980	1.21	1.14	.48	.53	.20	T	.10	T	T	.04	.06	1.24	1.24
1981	1.49	.46	.89	.08	.20	T	T	.03	T	.75	1.05	1.72	1.85
1982	5.27	1.81	1.67	1.47	T	.09	.01	.01	T	1.47	1.55	1.51	5.27
1983	1.26	1.30	1.13	.64	.34	T	T	.01	.60	.20	.80	1.64	1.64
1984	.19	.81	.45	.30	.01	T	.18	T	.14	.03	1.25	1.16	1.25
1985	.30	.85	.74	.09	.01	T	.12	.06	.02	.58	2.70	.49	2.70
1986	PART	1.33	1.07	.20	.08	T	.01	T	.01	.04	.05	.44	PART
MEAN	1.16	.74	.79	.50	.17	.09	.05	.03	.20	.57	.85	.97	1.72
S.D.	.857	.436	.427	.454	.250	.16	.154	.161	.439	.724	.628	.666	.817
TOT OBS	38	39	41	41	41	41	41	41	41	40	39	42	36
NOTE :	T = TRACE AMOUNTS (LESS THAN .01). OR 1.0 INCHES)												

23 - EXTREME VALUES

### PRECIPITATION (INCHES) (FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 13W ELEV. : 15 FT PAGE : 1

SNOWFALL (INCHES)  
(FROM DAILY OBS)

0023239 ALAMEDA CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT PAGE : 1

MEAN	S.D.	TOT	NOTE
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24 - EXTREME VALUES

**SNOWFALL (INCHES)  
(FROM DAILY OBS)**

0023239 ALAMEDA CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT PAGE : 1

<YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS

SNOW DEPTH (INCHES)  
(FROM DAILY OBS)

PERIOD OF RECORD : 1945-1986

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	PAGE : 1
1957	T	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	15 FT
1958	MISS													
1959	MISS													
1960	MISS													
1961	MISS													
1962	MISS													
1963	MISS													
1964	MISS													
1965	MISS													
1966	MISS													
1967	MISS													
1968	MISS													
1969	MISS													
1970	MISS													
1971	T	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	

MEAN \*\*\*\*\*  
 S.D. \*\*\*\*\*  
 TOT OBS 2 2 2 2 ? 1 2 1 2 2 2 1  
 NOTE : T = TRACE AMOUNTS (LESS THAN .01. OR 1.0 INCHES)

25 - EXTREME VALUES

SNOW DEPTH (INCHES)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LNG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL SNO DEPTH # DAYS
1957							0.		J.				29
							30						

## 27 - EXTREME VALUES

DAILY PEAK GUST (KNOIS)  
(FROM DAILY CBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1948	PART \ NW 31 \ PART \ SSW 38 \ W 30 \ W 29 \ W 26 \ W 27 \ PART												
1949	N 30 \ SSW 41 \ SSW 4C \ NWW 34 \ W 38 \ SSW 7 \ W 24 \ W 23 \ NNE 28 \ PART \ NE 28 \ PART												
1950	SW 46 \ PART \ PART \ W 26 \ W 29 \ W 37 \ W 22 \ WSW 21 \ WSW 25 \ W 48 \ SW 36 \ S 24 \ PART												
1951	W 52 \ SE 27 \ N 22 \ NWW 30 \ ESE 28 \ W 23 \ W 22 \ W 20 \ W 18 \ WNW 37 \ SSW 33 \ W 49 \ N 52 \ PART												
1952	PART \ NW 30 \ SE 37 \ PART \ SW 31 \ W 28 \ W 18 \ SW 19 \ PART \ SE 41 \ SW 40 \ PART												
1953	PART \ N 38 \ SSW 36 \ S 26 \ PART \ W 32 \ PART \ NWW 22 \ PART \ PART \ NE 34 \ PART												
1954	S 44 \ SW 32 \ NW 29 \ W 30 \ W 28 \ W 29 \ W 23 \ W 24 \ NNE 26 \ S 32 \ S 32 \ S 44 \ PART												
1955	SE 33 \ SSW 36 \ PART \ SE 46 \ WSW 29 \ WSW 29 \ WSW 26 \ W 24 \ NWW 23 \ SSE 38 \ SSW 60 \ PART												
1956	S 40 \ N 51 \ W 33 \ S 43 \ W 34 \ W 31 \ WSW 25 \ WSW 27 \ W 26 \ W 36 \ NWW 35 \ W 28 \ N 51 \ PART												
1957	SSW 45 \ SE 39 \ WSW 34 \ S 44 \ S 30 \ WSW 30 \ W 25 \ W 32 \ PART \ SE 32 \ NWW 34 \ SSW 44 \ PART												
1958	SE 38 \ SSW 59 \ SE 46 \ SSE 46 \ W 32 \ WSW 34 \ W 29 \ WSW 26 \ W 21 \ NWW 40 \ SE 26 \ SSW 59 \ PART												
1959	SE 48 \ SE 49 \ W 31 \ PART \ NWW 31 \ W 33 \ W 26 \ W 26 \ SE 36 \ N 43 \ NNE 29 \ W 36 \ PART												
1960	SE 34 \ W 41 \ W 42 \ W 38 \ W 31 \ W 32 \ WSW 30 \ W 30 \ W 28 \ W 28 \ N 35 \ NNE 45 \ SSE 37 \ NEE 45 \ PART												
1961	SE 36 \ W 32 \ WNW 37 \ S 46 \ WNW 36 \ W 39 \ W 37 \ W 26 \ W 26 \ W 28 \ N 35 \ NNE 45 \ SSE 37 \ NEE 45 \ PART												
1962	S 36 \ SE 46 \ NWW 44 \ NWW 36 \ W 36 \ W 37 \ W 37 \ W 26 \ W 26 \ W 28 \ N 24 \ SSE 29 \ N 24 \ SSE 29 \ N 46 \ PART												
1963	S 40 \ W 24 \ SE 40 \ S 33 \ W 26 \ W 30 \ W 26 \ W 25 \ W 25 \ W 23 \ S 35 \ S 43 \ NW 25 \ S 43 \ NW 25 \ S 43 \ PART												
1964	S 48 \ NE 39 \ NWW 45 \ NWW 40 \ NWW 41 \ SW 33 \ W 33 \ W 35 \ N 30 \ SSE 27 \ NW 44 \ NW 62 \ NW 62 \ PART												
1965	SE 43 \ N 34 \ S 31 \ NWW 43 \ N 34 \ W 38 \ W 24 \ WSW 30 \ NNE 42 \ SW 25 \ W 43 \ SSE 48 \ SSE 48 \ PART												
1966	SE 36 \ NNE 37 \ NWW 29 \ W 31 \ SSW 27 \ W 30 \ W 32 \ W 31 \ W 32 \ N 32 \ SE 36 \ SSE 42 \ SSE 42 \ PART												
1967	SE 52 \ NW 36 \ SSW 50 \ WSW 38 \ NWW 33 \ W 31 \ W 21 \ WSW 20 \ NW 25 \ W 43 \ NE 38 \ NE 51 \ SSE 52 \ SSE 52 \ PART												
1968	SSE 38 \ SE 29 \ S 38 \ S 33 \ W 32 \ W 26 \ W 32 \ W 29 \ SE 29 \ SSE 40 \ SSE 45 \ SSE 45 \ PART												
1969	SSW 52 \ SSE 48 \ W 35 \ SW 33 \ NW 25 \ W 31 \ W 27 \ W 24 \ SSE 23 \ N 36 \ SE 27 \ PART \ MISS												
1970	SW 43 \ NE 35 \ N 36 \ W 39 \ W 31 \ PART												
1971	W 40 \ UNK 34 \ NWW 35 \ PART \ PART \ PART \ UNK 26 \ PART \ UNK 25 \ PART \ PART \ UNK 21 \ PART \ PART \ UNK 31 \ UNK 33 \ PART												
1972	UNK 30 \ UNK 25 \ UNK 26 \ UNK 29 \ UNK 25 \ PART \ PART \ UNK 29 \ UNK 26 \ UNK 25 \ UNK 38 \ UNK 40 \ UNK 30 \ PART												
1973	UNK 37 \ NNE 31 \ PART \ PART \ PART \ PART \ UNK 33 \ NWW 31 \ UNK 35 \ UNK 25 \ UNK 25 \ UNK 35 \ UNK 32 \ UNK 39 \ PART												
1974	NNE 37 \ UNK 33 \ NWW 31 \ UNK 30 \ UNK 35 \ UNK 25 \ UNK 26 \ PART \ UNK 25 \ UNK 25 \ UNK 32 \ UNK 39 \ PART												
1975	UNK 35 \ UNK 36 \ UNK 42 \ UNK 33 \ ESE 38 \ UNK 32 \ UNK 27 \ UNK 29 \ UNK 24 \ VNE 33 \ ESE 31 \ UNK 26 \ UNK 42 \ PART												
1976	N 33 \ UNK 38 \ UNK 37 \ ESE 38 \ UNK 30 \ UNK 33 \ UNK 28 \ UNK 25 \ UNK 25 \ UNK 30 \ PART \ UNK 25 \ PART												
1977	UNK 34 \ UNK 39 \ UNK 35 \ UNK 25 \ UNK 33 \ UNK 29 \ PART \ PART \ UNK 31 \ UNK 31 \ NNE 35 \ NE 36 \ PART												
1978	UNK 45 \ UNK 44 \ UNK 33 \ UNK 34 \ ESE 33 \ PART \ UNK 32 \ UNK 31 \ NNE 30 \ UNK 25 \ UNK 27 \ VSE 40 \ PART												
1979	NNE 34 \ UNK 38 \ NWW 40 \ UNK 34 \ UNK 30 \ UNK 34 \ UNK 27 \ UNK 34 \ UNK 24 \ UNK 32 \ UNK 26 \ UNK 43 \ UNK 43 \ PART												
1980	UNK 44 \ UNK 40 \ UNK 36 \ UNK 32 \ UNK 32 \ UNK 25 \ UNK 25 \ UNK 24 \ UNK 24 \ UNK 26 \ UNK 26 \ UNK 35 \ UNK 44 \ PART												
1981	NWW 36 \ UNK 29 \ UNK 36 \ UNK 27 \ UNK 34 \ ENE 27 \ UNK 26 \ UNK 27 \ UNK 27 \ VSE 29 \ UNK 34 \ UNK 43 \ UNK 33 \ UNK 43 \ PART												
1982	UNK 42 \ UNK 32 \ UNK 44 \ UNK 36 \ UNK 32 \ UNK 31 \ UNK 24 \ UNK 24 \ UNK 22 \ UNK 22 \ UNK 27 \ UNK 39 \ UNK 55 \ UNK 55 \ PART												
1983	UNK 37 \ UNK 38 \ UNK 34 \ UNK 34 \ UNK 34 \ UNK 25 \ UNK 33 \ UNK 34 \ UNK 25 \ UNK 22 \ UNK 22 \ UNK 30 \ E 28 \ UNK 34 \ UNK 33 \ UNK 34 \ PART												
1984	UNK 28 \ UNK 34 \ UNK 33 \ UNK 30 \ UNK 28 \ UNK 28 \ UNK 20 \ UNK 20 \ UNK 29 \ UNK 29 \ UNK 32 \ UNK 30 \ E 28 \ UNK 34 \ UNK 33 \ UNK 34 \ PART												
1985	UNK 19 \ UNK 25 \ UNK 24 \ UNK 24 \ UNK 28 \ UNK 28 \ UNK 22 \ UNK 22 \ UNK 23 \ UNK 23 \ UNK 28 \ UNK 28 \ UNK 29 \ UNK 35 \ UNK 33 \ UNK 34 \ PART												
1986	UNK 22 \ UNK 38 \ UNK 35 \ UNK 30 \ UNK 30 \ UNK 26 \ UNK 23 \ UNK 23 \ UNK 22 \ UNK 22 \ UNK 25 \ UNK 25 \ UNK 19 \ UNK 36 \ UNK 33 \ UNK 34 \ PART												

MEAN	39.3	36.9	36.0	34.7	31.6	30.5	26.2	25.9	26.7	32.2	34.8	36.9	47.0
S.D.	7.944	8.026	5.886	6.287	4.385	3.291	4.073	4.338	4.882	6.868	6.285	10.617	7.768
TOT OBS	36	38	35	35	36	36	34	35	35	35	35	37	21

## 27 - EXTREME VALUES

DAILY PEAK GUST (KNOBS)  
(FROM DAILY OBS)023239 ALAMEDA CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

## YEAR/MONTHS WITH &lt; FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL # DAYS	PEAK GUST # DAYS
1948	NE 26\ 23	S 3C\ 30	-	-	-	-	-	-	\WW 23\ 29	-	-	-	S 30\ 29	PEAK GUST # DAYS
1949	-	-	-	-	-	-	-	-	-	-	-	-	-	PEAK GUST # DAYS
1950	SE 30\ NW 36\ 24	NW 30\ 30	-	-	-	-	-	-	-	-	-	-	-	PEAK GUST # DAYS
1952	S 43\ 30	-	-	W 26\ 29	-	-	-	-	-	W 15\ 30	-	-	-	PEAK GUST # DAYS
1953	WSW 29\ 30	-	-	W 40\ 28	-	W 22\ 30	-	W 22\ 29	N 36\ SSW 53\ 30	-	-	-	PEAK GUST # DAYS	PEAK GUST # DAYS
1955	-	NNE 33\ 29	-	-	-	-	-	-	-	-	-	-	-	PEAK GUST # DAYS
1957	-	-	-	S 75\ 29	-	-	-	-	W 30\ 29	-	-	-	-	PEAK GUST # DAYS
1959	-	-	-	-	-	-	-	-	-	-	-	-	-	PEAK GUST # DAYS
1969	-	-	-	-	-	-	-	-	-	-	-	SE 34\ 29	PEAK GUST # DAYS	
1970	-	-	-	-	W 41\ 29	W 25\ SSW 24\ WSW 30\ SW 32\ 26	-	-	-	-	-	-	PEAK GUST # DAYS	
1971	-	-	-	-	UNK 30\ UNK 31\ 27	UNK 25\ 30	UNK 22\ UNK 31\ 20	UNK 22\ UNK 31\ 20	-	-	-	-	PEAK GUST # DAYS	
1972	-	-	-	-	UNK 23\ UNK 29\ UNK 27\ 26	UNK 27	UNK 28	-	-	-	-	UNK 36\ 30	PEAK GUST # DAYS	
1973	-	E 32\ UNK 32\ 30	S 32\ UNK 32\ 29	-	-	-	-	-	-	-	-	-	-	PEAK GUST # DAYS
1974	-	-	-	-	-	-	-	-	UNK 29\ 30	-	-	-	-	PEAK GUST # DAYS
1976	-	-	-	-	-	-	-	-	-	-	-	-	UNK 38\ 29	PEAK GUST # DAYS
1977	-	-	-	-	-	-	-	-	UNK 28\ UNK 32\ 26	-	-	-	-	PEAK GUST # DAYS

1986

\UNK 26 \ PEAK GUST  
29 # DAYS

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JAN

## MEAN TEMPERATURE | MAXIMUM TEMPERATURE | MINIMUM TEMPERATURE

DAY	AVERAGE			MAXIMUM TEMPERATURE			AVERAGE			MINIMUM TEMPERATURE		
	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C
1	48.7	9.3	54.4	12.5	61.0	16.1	1973.	43.0	6.1	34.0	1.1	1952.
2	48.5	9.2	53.9	12.2	64.0	17.8	1984.	43.2	6.2	36.0	2.2	1968.*
3	48.6	9.2	54.0	12.2	64.0	17.8	1964.	43.1	6.2	34.0	1.1	1968.
4	48.5	9.2	54.1	12.3	64.0	17.8	1958.	42.2	6.1	33.0	.6	1950.
5	48.6	9.2	54.0	12.2	63.0	17.2	1986.*	43.1	6.2	31.0	-6	1949.
6	49.3	9.6	55.1	12.8	65.0	18.3	1948.	43.4	6.3	34.0	1.1	1968.*
7	48.9	9.4	54.3	12.4	63.0	17.2	1963.	43.4	6.3	31.0	-6	1968.
8	49.8	9.9	55.1	12.6	69.0	20.6	1962.	44.6	7.0	37.0	2.8	1971.
9	49.4	9.7	54.7	12.6	69.0	20.6	1962.	44.1	6.7	35.0	1.7	1949.
10	49.6	9.8	55.0	12.8	66.0	18.9	1962.*	44.3	6.8	31.0	-6	1949.
11	49.7	9.8	54.8	12.7	64.0	17.8	1984.	44.5	7.0	30.0	-1.1	1949.
12	50.3	10.1	55.2	13.2	72.0	22.2	1948.	44.7	7.1	34.0	1.1	1949.
13	50.0	10.0	55.9	13.3	66.0	18.9	1967.	44.2	6.8	31.0	-6	1949.
14	50.1	10.0	56.0	13.3	67.0	19.4	1975.	44.1	6.7	37.0	2.8	1949.
15	50.0	10.0	55.5	13.1	68.0	20.0	1966.	44.4	6.9	35.0	1.7	1950.
16	50.7	10.4	56.6	13.7	68.0	20.0	1948.	44.7	7.1	37.0	2.8	1977.
17	50.2	10.1	56.0	13.3	64.0	17.8	1986.*	44.4	6.9	36.0	2.2	1947.
18	50.4	10.2	55.8	13.2	68.0	20.0	1958.	45.0	7.2	36.0	2.2	1947.
19	50.4	10.2	55.1	12.8	67.0	19.4	1976.	45.7	7.6	36.0	3.3	1967.
20	50.3	10.2	55.7	13.2	69.0	20.6	1976.	44.9	7.2	34.0	1.1	1949.
21	50.3	10.2	55.5	13.0	66.0	18.9	1976.	45.2	7.3	34.0	1.1	1962.
22	51.2	10.7	57.2	14.0	72.0	22.2	1968.	45.2	7.3	33.0	.6	1962.
23	51.0	10.6	57.1	14.0	71.0	21.7	1974.	44.9	7.2	32.0	0	1949.
24	50.5	10.3	56.1	13.4	67.0	19.4	1984.*	44.9	7.2	32.0	0	1949.
25	50.6	10.3	56.3	13.5	68.0	20.0	1986.*	44.8	7.1	33.0	.6	1949.
26	51.1	10.6	57.2	14.0	72.0	22.2	1984.	45.0	7.2	34.0	1.1	1949.
27	50.9	10.5	57.0	13.9	72.0	22.2	1984.	44.8	7.1	34.0	1.1	1949.
28	50.4	10.2	56.3	13.5	68.0	20.0	1976.	44.5	6.9	36.0	2.2	1957.
29	49.8	9.9	55.3	13.0	65.0	18.3	1984.	44.3	6.8	35.0	1.7	1950.
30	51.0	10.5	57.1	13.9	70.0	21.1	1976.	44.9	7.2	38.0	3.3	1975.*
31	50.9	10.5	57.0	13.9	71.0	21.7	1976.	44.9	7.2	36.0	2.2	1972.*
MONTH	50.0	10.0	55.6	13.1	72.0	22.2	1984.*	44.4	6.9	36.0	-1.1	1949.

## NOTES :

T = TRACE AMOUNTS (<.01. OR <.5. OR < 1.0 INCHES)

\* = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023232 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEVA.: 15 FT  
MONTH : FEB

MEAN TEMPERATURE	MAXIMUM TEMPERATURE						MINIMUM TEMPERATURE					
	AVERAGE DEG F	DEG C	AVERAGE DEG F	DEG C	EXTREME DEG F	DEG C	AVERAGE DEG F	DEG C	EXTREME DEG F	DEG C	DATE	
1	52.0	11.1	58.0	14.4	73.0	22.8	1976.	45.9	7.7	34.0	1.1	1950.
2	51.8	11.0	58.0	14.4	72.0	22.2	1976.	45.7	7.6	36.0	2.2	1949.
3	51.9	11.0	58.3	14.6	69.0	20.6	1984.	45.4	7.4	38.0	3.3	1972.+
4	52.4	11.3	58.7	14.8	69.0	20.6	1983.	46.1	7.8	38.0	3.1	1946.
5	52.4	11.3	58.0	14.5	68.0	20.0	1961.	46.8	8.2	38.0	3.3	1976.
6	53.1	11.7	59.0	15.0	70.0	21.1	1967.	47.2	8.5	36.0	2.2	1949.
7	52.8	11.6	58.7	14.8	68.0	20.0	1963.	47.0	8.3	38.0	3.3	1948.
8	53.0	11.7	58.9	14.9	73.0	22.8	1970.	47.0	8.4	36.0	2.2	1949.
9	52.9	11.6	58.4	14.7	68.0	20.0	1953.	47.3	8.5	41.0	5.0	1950.+
10	53.3	11.8	59.0	15.0	66.0	18.9	1971.+	47.6	8.7	40.0	4.9	1985.
11	53.2	11.8	59.1	15.0	67.0	19.4	1971.+	47.2	8.5	37.0	2.8	1949.
12	53.4	11.9	59.4	15.2	69.0	20.6	1953.	47.4	8.6	34.0	1.1	1949.
13	53.5	11.9	59.6	15.3	70.0	21.1	1977.	47.4	8.6	34.0	1.1	1949.
14	53.5	12.0	59.6	15.3	74.0	23.3	1977.	47.5	8.6	34.0	1.1	1949.
15	54.1	12.3	60.1	15.6	72.0	22.2	1977.	48.2	9.0	41.0	5.0	1956.
16	54.0	12.2	59.8	15.4	70.0	21.1	1977.	48.2	9.0	38.0	3.3	1956.
17	53.9	12.2	60.0	15.6	72.0	22.2	1977.	47.8	8.8	40.0	4.4	1956.+
18	53.8	12.1	59.9	15.5	72.0	22.2	1981.	47.6	8.7	39.0	3.9	1956.
19	54.0	12.2	59.8	15.4	76.0	24.4	1964.	48.1	9.0	39.0	3.9	1949.
20	54.6	12.5	61.1	16.2	72.0	22.2	1964.	48.0	8.9	42.0	5.6	1976.+
21	54.7	12.6	61.5	16.4	79.0	26.1	1985.	47.9	8.8	42.0	5.6	1976.+
22	54.6	12.6	61.1	16.2	78.0	25.6	1985.	48.1	9.0	40.0	4.4	1964.
23	54.8	12.6	61.8	16.5	72.0	22.2	1985.+	47.8	8.8	42.0	5.6	1971.+
24	55.0	12.8	61.7	16.5	76.0	24.4	1954.	48.7	9.1	40.0	4.4	1964.
25	54.8	12.7	61.5	16.3	73.0	22.8	1968.	48.2	9.0	38.0	3.3	1964.
26	54.2	12.3	60.6	15.9	76.0	24.4	1968.	47.8	8.8	37.0	2.8	1971.
27	54.9	12.7	61.6	16.4	76.0	24.4	1986.	48.3	9.0	36.0	2.2	1962.
28	54.7	12.6	60.7	15.9	70.0	21.1	1986.+	48.7	9.3	40.0	4.4	1962.+
MONTH	53.6	12.0	59.8	15.4	79.0	26.1	1985.	47.5	8.6	34.0	1.1	1950.+

## NOTES :

T = TRACE AMOUNTS (≤ 0.01, OR &lt; 0.5, OR ≤ 1.0 INCHES).

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 49W ELEV. : 15 FT  
MONTH : MAR

MEAN TEMPERATURE	MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE		
	DAY	AVG F	DEG C	DEG F	DEG C	AVG F
1	53.8	12.1	60.1	15.6	76.0	24.4
2	53.7	12.1	59.9	15.5	71.0	21.7
3	54.1	12.3	60.8	16.0	80.0	26.7
4	54.8	12.7	61.4	16.3	77.0	25.0
5	54.7	12.6	61.3	16.3	74.0	23.3
6	54.6	12.6	61.2	16.2	74.0	23.3
7	55.1	12.8	61.9	16.6	78.0	25.6
8	55.5	13.0	62.1	16.7	73.0	22.8
9	54.7	12.6	60.4	15.8	72.0	22.2
10	54.5	12.5	60.5	15.8	70.0	21.1
11	54.7	12.6	60.8	16.0	72.0	22.2
12	54.5	12.5	60.9	16.0	71.0	21.7
13	54.6	12.5	61.5	16.4	76.0	24.4
14	54.8	12.7	62.0	16.6	77.0	25.0
15	55.2	12.9	62.0	16.7	82.0	27.8
16	55.3	12.9	62.1	16.7	80.0	26.7
17	55.5	13.1	62.5	16.9	79.0	26.1
18	55.9	13.3	62.9	17.2	78.0	25.6
19	56.4	13.6	64.0	17.8	77.0	25.0
20	55.2	12.9	62.0	16.6	74.0	23.3
21	55.2	12.9	61.9	16.6	76.0	24.4
22	55.4	13.0	61.9	16.6	72.0	22.2
23	56.0	13.3	63.0	17.2	75.0	23.9
24	55.8	13.2	62.3	17.1	77.0	25.0
25	56.1	13.4	63.4	17.4	84.0	28.9
26	57.1	13.9	64.7	18.1	84.0	28.9
27	57.3	14.1	64.8	18.2	78.0	25.6
28	56.8	13.8	64.2	17.9	79.0	26.1
29	56.7	13.7	63.6	17.6	80.0	26.7
30	56.7	13.7	63.7	17.6	77.0	25.0
31	56.6	13.7	63.8	17.7	86.0	30.0
MONTH	55.4	13.0	62.2	16.6	86.0	30.0

NOTES :  
 T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37° 47'N LONG. : 122° 19'W ELEV. : 15 FT MONTH : APR

MEAN TEMPERATURE	MAXIMUM TEMPERATURE						MINIMUM TEMPERATURE					
	AVERAGE			EXTREME			AVERAGE			EXTREME		
	DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE	DEG F	DEG C	DEG F	DEG C
1	56.1	13.4	63.5	17.5	80.0	26.7	1985.	48.6	9.2	38.0	3.3	1967.
2	57.0	13.9	64.7	18.2	83.0	28.3	1985.	49.3	9.6	44.0	6.7	1976.*
3	58.0	14.5	66.2	19.0	84.0	28.9	1961.	49.9	9.9	44.0	6.7	1967.*
4	58.3	14.6	66.3	19.0	82.0	27.8	1985.	50.4	10.2	45.0	7.2	1975.*
5	57.0	13.9	63.3	17.4	80.0	26.7	1961.	50.6	10.4	43.0	6.1	1975.
6	56.6	13.6	63.3	17.4	80.0	26.7	1962.	49.9	9.9	43.0	6.1	1975.
7	56.6	13.7	63.8	17.7	79.0	26.1	1962.	49.4	9.6	44.0	6.7	1971.*
8	56.9	13.9	64.1	17.8	76.0	24.4	1961.	49.8	9.9	43.0	6.1	1971.
9	56.6	13.6	63.5	17.5	82.0	27.8	1968.	49.6	9.8	43.0	6.1	1953.
10	57.2	14.0	64.8	18.2	77.0	25.0	1949.	49.6	9.8	42.0	5.6	1967.
11	57.7	14.3	65.7	18.7	83.0	28.3	1958.	49.7	9.9	40.0	4.4	1967.
12	58.9	15.0	67.0	19.4	92.0	33.3	1947.	50.9	10.5	44.0	6.7	1956.
13	58.2	14.6	65.7	18.7	86.0	30.0	1947.	50.7	10.4	44.0	6.7	1972.
14	58.8	14.9	66.8	19.3	86.0	30.0	1947.	50.9	10.5	46.0	7.8	1975.*
15	58.1	14.5	65.9	18.8	87.0	30.6	1966.	50.3	10.2	44.0	6.7	1975.
16	57.3	14.1	64.8	18.2	80.0	26.4	1966.	49.8	9.9	42.0	5.6	1967.
17	56.8	13.9	63.8	17.7	82.0	27.8	1954.	49.7	9.9	43.0	6.1	1971.
18	57.7	14.3	65.3	18.5	83.0	28.3	1950.	50.2	10.1	41.0	5.0	1967.
19	58.1	14.5	65.8	18.6	83.0	28.3	1950.	50.4	10.2	40.0	4.4	1967.
20	57.6	14.2	65.1	18.4	83.0	28.3	1986.	50.0	10.0	40.0	4.4	1967.
21	57.5	14.1	65.2	18.4	80.0	26.7	1982.	49.7	9.9	40.0	4.4	1971.
22	57.7	14.3	65.3	18.5	85.0	29.4	1966.	50.2	10.1	42.0	5.6	1967.
23	57.9	14.4	65.5	18.6	88.0	31.1	1966.	50.4	10.2	44.0	6.7	1964.
24	57.6	14.2	64.8	18.2	76.0	24.4	1973.*	50.4	10.2	43.0	6.1	1971.
25	57.3	14.0	64.1	17.8	75.0	23.9	1965.*	50.5	10.3	44.0	6.7	1967.
26	58.0	14.5	65.7	18.7	84.0	28.9	1965.	50.4	10.2	43.0	6.1	1967.*
27	58.4	14.7	66.1	19.0	81.0	27.2	1957.	50.6	10.3	44.0	6.7	1970.*
28	58.1	14.5	65.8	18.8	88.0	31.1	1981.	50.5	10.3	41.0	5.0	1967.
29	58.7	14.8	66.5	19.1	90.0	32.2	1981.	50.9	10.5	43.0	6.1	1967.
30	58.3	14.6	66.0	18.9	82.0	27.8	1947.	50.6	10.3	44.0	6.7	1967.
MONTH	57.6	14.2	65.1	18.4	92.0	33.3	1947.	50.1	10.1	38.0	3.3	1967.

NOTES:  
 T = TRACE AMOUNTS (<.01, OR <.5, OF < 1.0 INCHES)  
 \* = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT. MONTH : MAY

MEAN TEMPERATURE	MAXIMUM TEMPERATURE						MINIMUM TEMPERATURE						
	AVERAGE DAY	DEG F	DEG C	AVERAGE DEG F	DEG C	EXTREME DEG F	DEG C	AVERAGE DATE	DEG F	DEG C	EXTREME DEG F	DEG C	DATE
1	58.4	14.6	65.7	65.7	18.7	87.0	30.6	1947.	51.0	10.5	45.0	7.2	1969.+
2	58.3	14.6	65.9	65.9	18.8	83.0	28.3	1970.	50.7	10.4	44.0	6.7	1964.+
3	58.0	14.4	65.1	65.1	18.4	80.0	26.7	1953.	50.8	10.4	45.0	7.2	1950.+
4	58.3	14.6	65.5	65.5	18.6	85.0	29.4	1951.	51.1	10.6	44.0	6.7	1964.+
5	58.8	14.9	66.4	66.4	19.1	83.0	28.3	1969.	51.2	10.7	43.0	6.1	1964.
6	59.6	15.4	67.6	67.6	19.8	89.0	31.7	1949.	51.7	10.9	42.0	5.6	1964.
7	59.4	15.2	67.0	67.0	19.5	84.0	28.9	1959.	51.8	11.0	46.0	7.8	1968.
8	58.4	14.6	65.3	65.3	18.5	81.0	27.2	1984.	51.4	10.8	48.0	8.9	1985.+
9	58.6	14.8	66.1	66.1	18.9	77.0	25.0	1986.	51.2	10.7	48.0	8.9	1975.+
10	59.5	15.3	67.4	67.4	19.6	82.0	27.8	1959.	51.6	10.9	47.0	8.3	1967.+
11	60.2	15.7	68.5	68.5	20.3	85.0	29.4	1972.	51.9	11.1	48.0	8.9	1986.+
12	60.0	15.6	67.8	67.8	19.9	100.0	37.8	1976.	52.3	11.3	46.0	7.8	1967.
13	59.8	15.4	67.3	67.3	19.6	90.0	32.2	1972.	52.3	11.3	47.0	8.3	1968.
14	59.9	15.5	67.9	67.9	19.9	83.0	28.3	1970.	51.9	11.1	46.0	7.8	1968.
15	60.6	15.9	69.2	69.2	20.7	94.0	34.4	1970.	52.0	11.1	45.0	7.2	1964.
16	60.8	16.0	69.4	69.4	20.8	89.0	31.7	1970.+	52.2	11.2	48.0	8.9	1968.+
17	60.5	15.8	68.8	68.8	20.4	83.0	28.3	1983.+	52.2	11.2	48.0	8.9	1968.+
18	59.7	15.4	67.3	67.3	19.6	86.0	30.0	1955.	52.2	11.2	47.0	8.3	1950.+
19	60.6	15.9	68.4	68.4	20.2	89.0	31.7	1983.	52.8	11.6	48.0	8.9	1976.
20	59.4	15.2	66.8	66.8	19.3	80.0	26.7	1983.	52.0	11.1	49.0	9.4	1976.+
21	59.8	15.4	67.3	67.3	19.6	78.0	25.6	1952.	52.3	11.3	49.0	9.4	1967.+
22	60.2	15.6	67.9	67.9	19.9	82.0	27.8	1954.	52.5	11.4	47.0	8.3	1960.+
23	59.9	15.5	67.1	67.1	19.5	86.0	30.0	1982.	52.6	11.4	49.0	9.4	1986.
24	60.2	15.6	67.7	67.7	19.8	84.0	28.9	1982.	52.6	11.5	48.0	8.9	1967.
25	60.7	16.0	68.6	68.6	20.3	91.0	32.8	1951.	52.8	11.6	48.0	8.9	1967.+
26	60.6	15.9	68.1	68.1	20.0	88.0	31.1	1974.	53.1	11.7	49.0	9.4	1967.+
27	60.6	15.9	68.4	68.4	20.2	95.0	35.0	1984.	52.7	11.5	48.0	8.9	1967.
28	61.1	16.2	69.0	69.0	20.6	92.0	33.3	1975.	53.1	11.7	49.0	9.4	1976.+
29	61.3	16.3	69.4	69.4	20.8	96.0	35.6	1975.	52.2	11.8	49.0	9.4	1965.
30	61.3	16.3	69.2	69.2	20.6	92.0	33.3	1978.	53.4	11.9	48.0	8.9	1971.
31	61.0	16.1	68.7	68.7	20.4	87.0	30.6	1970.	53.3	11.8	46.0	7.8	1971.
MONTH	59.9	15.5	67.6	67.6	19.8	100.0	77.8	1976.	52.1	11.2	42.0	5.6	1964.

NOTES :  
T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
+ = VALUE OCCUPIED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : JUN

DAY	MEAN TEMPERATURE			MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE			EXTREME		
	AVERAGE		DEG F	DEG C	AVERAGE		DEG F	DEG C	DEG F	DEG C	DEG F	DEG C
	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C
1	61.4	16.3	69.2	20.7	84.0	28.9	1960.	53.6	12.0	49.0	9.4	1971.*
2	61.5	16.4	69.2	20.7	94.0	34.4	1960.	53.8	12.1	48.0	8.9	1966.
3	61.2	16.2	68.5	20.3	89.0	31.7	1949.	53.9	12.1	49.0	9.4	1966.
4	62.1	16.7	70.2	21.2	100.0	37.8	1949.	54.0	12.2	50.0	10.0	1976.*
5	62.3	16.8	70.1	21.2	85.0	29.4	1983.	54.5	12.5	49.0	9.4	1951.*
6	62.0	16.6	69.2	20.7	85.0	29.4	1983.	54.7	12.6	50.0	10.0	1971.*
7	61.5	16.4	68.9	20.5	89.0	31.7	1979.	54.1	12.3	50.0	10.0	1951.*
8	61.6	16.4	68.9	20.5	97.0	36.1	1973.	54.3	12.4	50.0	10.0	1967.*
9	61.6	16.4	68.9	20.5	90.0	32.2	1986.	54.2	12.4	50.0	10.0	1967.*
10	62.0	16.6	69.6	20.9	88.0	31.1	1985.	54.3	12.4	50.0	10.0	1972.*
11	61.9	16.6	69.5	20.8	85.0	29.4	1945.	54.3	12.4	49.0	9.4	1965.
12	61.9	16.6	69.5	20.8	88.0	31.1	1947.	54.4	12.4	50.0	10.0	1967.*
13	62.6	17.0	70.7	21.5	96.0	35.6	1966.	54.4	12.4	50.0	10.0	1965.*
14	63.6	17.5	72.0	22.2	100.0	37.8	1961.	55.2	12.9	50.0	10.0	1967.
15	63.8	17.7	72.2	22.3	94.0	34.4	1976.	55.4	13.0	50.0	10.0	1967.
16	63.2	17.3	71.6	22.0	86.0	30.0	1957.	54.7	12.6	49.0	9.4	1977.*
17	63.7	17.6	72.3	22.4	92.0	33.3	1957.	55.2	12.9	49.0	9.4	1967.
18	63.4	17.4	71.5	21.9	88.0	31.0	1946.	55.3	12.9	52.0	11.1	1972.*
19	63.0	17.2	70.9	21.6	91.0	32.8	1981.	55.1	12.8	51.0	10.6	1967.*
20	63.3	17.4	71.6	22.0	93.0	33.9	1973.	55.0	12.8	50.0	10.0	1964.*
21	64.1	17.9	73.1	22.8	90.0	32.2	1981.*	55.2	12.9	51.0	10.6	1975.*
22	64.0	17.8	72.5	22.5	94.0	34.4	1957.	55.4	13.0	51.0	10.6	1966.*
23	62.7	17.1	70.5	21.4	100.0	37.8	1976.	55.0	12.8	50.0	10.0	1967.
24	63.5	17.5	71.9	22.1	99.0	37.2	1976.	55.1	12.8	50.0	10.0	1967.*
25	63.2	17.3	71.3	21.8	96.0	35.6	1976.	55.1	12.8	51.0	10.6	1975.*
26	63.2	17.3	71.5	22.0	94.0	34.4	1976.*	54.9	12.7	50.0	10.0	1967.
27	64.1	17.8	73.0	22.8	101.0	39.3	1976.	55.2	12.9	51.0	10.6	1967.*
28	63.2	17.3	71.3	21.9	91.0	32.8	1976.	55.1	12.8	52.0	11.1	1979.*
29	63.1	17.3	71.6	22.0	86.0	30.0	1959.	54.6	12.6	51.0	10.6	1949.*
30	63.0	17.2	71.4	21.9	89.0	31.7	1972.	54.7	12.6	50.0	10.0	1969.
MONTH	62.7	17.1	70.8	21.5	101.0	38.3	1976.	54.7	12.6	48.0	8.9	1966.*

NOTES :  
T = TRACE AMOUNTS (<.001, OR <.5, OR < 1.0 INCHES)  
\* = VALUE OCCURRED IN PREVIOUS YEAR(S).  
THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : JUL

## MEAN TEMPERATURE | MAXIMUM TEMPERATURE | MINIMUM TEMPERATURE

DAY	AVERAGE			MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE		
	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F
1	63.3	17.4	71.7	22.1	94.0	34.4	1985.	54.9	12.7
2	63.1	17.3	71.2	21.8	101.0	38.3	1970.	55.0	12.8
3	62.6	17.0	70.6	21.4	91.0	32.8	1970.	54.7	12.6
4	62.7	17.0	70.8	21.6	83.0	28.3	1973.	54.5	12.5
5	62.6	17.0	70.5	21.4	79.0	26.1	1968.	54.6	12.5
6	62.3	16.8	70.1	21.2	81.0	27.2	1957.	54.5	12.5
7	62.4	16.9	70.0	21.1	81.0	27.2	1981.	54.7	12.6
8	63.5	17.5	71.8	22.1	86.0	30.0	1961.	55.2	12.9
9	63.9	17.7	72.3	22.4	92.0	33.3	1961.*	55.6	13.1
10	64.1	17.9	72.7	22.6	95.0	35.0	1959.	55.6	13.1
11	63.7	17.6	72.0	22.2	93.0	33.9	1983.	55.4	13.0
12	63.5	17.5	71.5	22.0	88.0	31.1	1983.	55.4	13.0
13	64.4	18.0	73.1	22.8	97.0	36.1	1972.	55.7	13.2
14	64.1	17.8	72.5	22.5	100.0	37.8	1972.	55.8	13.2
15	63.5	17.5	71.4	21.9	84.0	28.9	1957.	55.6	13.1
16	63.6	17.5	71.6	22.0	82.0	27.8	1978.	55.5	13.1
17	63.4	17.4	70.9	21.6	85.0	29.4	1961.	55.9	13.3
18	63.5	17.5	71.0	21.7	91.0	32.8	1968.	55.9	13.3
19	63.3	17.4	71.0	21.7	84.0	28.9	1961.	55.6	13.1
20	63.1	17.3	70.5	21.4	83.0	28.3	1960.	55.7	13.1
21	62.9	17.2	70.3	21.3	82.0	27.8	1954.	55.5	13.1
22	63.3	17.4	70.8	21.5	81.0	27.2	1976.	55.2	13.3
23	63.0	17.2	70.2	21.2	83.0	28.3	1964.	55.8	13.2
24	63.5	17.5	71.1	21.7	88.0	31.1	1974.	55.8	13.2
25	64.1	17.8	72.2	22.3	91.0	32.8	1973.	56.0	13.3
26	64.0	17.8	71.9	22.2	90.0	32.2	1963.	56.1	13.4
27	63.4	17.4	70.8	21.5	85.0	29.4	1954.	56.0	13.3
28	63.7	17.6	71.0	21.6	90.0	32.2	1954.	56.4	13.5
29	63.3	17.4	70.6	21.5	88.0	31.1	1977.	55.9	13.3
30	63.2	17.4	70.5	21.4	89.0	31.7	1977.	56.0	13.3
31	64.0	17.8	71.8	22.1	89.0	31.7	1966.	56.1	13.4
MONTH	63.4	17.4	71.2	21.8	101.0	38.3	1970.	55.5	13.1

NOTES:  
 T = TRACE AMOUNTS (<.01, OR <.5, OR <1.0 INCHES)

\* = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT MONTH : AUG

MEAN TEMPERATURE	MAXIMUM TEMPERATURE						MINIMUM TEMPERATURE					
	AVERAGE		AVERAGE		EXTREME		AVERAGE		EXTREME		DATE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DATE	DEG F	DEG C	DEG F	DEG C	DATE
1	63.9	17.7	71.8	22.2	86.0	30.0	1975.	56.1	13.4	49.0	9.4	1970.
2	63.3	17.4	70.8	21.5	88.0	31.1	1946.	55.9	13.3	50.0	10.0	1967.
3	63.0	17.2	70.2	21.1	82.0	27.8	1985.*	55.7	13.2	50.0	10.0	1967.
4	62.9	17.1	70.0	21.1	87.0	30.6	1947.	55.8	13.2	49.0	9.4	1967.
5	63.6	17.5	71.5	21.9	82.0	27.8	1964.	55.7	13.1	50.0	10.0	1967.
6	65.1	18.4	73.8	23.2	95.0	35.0	1983.	56.5	13.6	52.0	11.1	1967.
7	64.3	17.9	72.3	22.4	93.0	33.9	1984.	56.2	13.5	52.0	11.1	1970.*
8	63.8	17.7	71.8	22.1	86.0	30.0	1975.	55.9	13.3	52.0	11.1	1969.*
9	63.6	17.5	71.2	21.8	90.0	32.2	1970.	56.0	13.3	52.0	11.1	1967.*
10	63.0	17.2	70.2	21.2	84.0	28.2	1970.	55.8	12.2	52.0	11.1	1973.*
11	62.5	16.9	69.3	20.7	83.0	28.3	1959.	55.7	13.1	52.0	11.1	1967.*
12	63.5	17.5	70.9	21.6	89.0	31.1	1959.	56.1	13.4	50.0	10.0	1967.
13	63.5	17.5	70.9	21.6	87.0	30.6	1965.	56.1	13.4	52.0	11.1	1967.
14	63.4	17.5	70.8	21.5	84.0	28.9	1963.	56.1	13.4	52.0	11.1	1969.*
15	64.0	17.8	71.7	22.1	89.0	31.7	1950.	56.2	13.5	52.0	11.1	1966.
16	64.2	17.9	71.9	22.2	84.0	28.9	1966.*	56.5	13.6	52.0	11.1	1963.*
17	64.1	17.8	71.7	22.0	82.0	27.8	1966.	56.5	13.6	53.0	11.7	1965.*
18	64.0	17.8	71.6	22.0	86.0	30.0	1978.	56.4	13.5	52.0	11.1	1955.
19	64.5	18.0	72.0	22.2	88.0	31.1	1964.	57.0	13.9	51.0	10.6	1955.
20	64.5	18.0	72.1	22.3	82.0	27.8	1969.*	56.8	13.8	51.0	10.6	1955.
21	64.3	17.9	72.0	22.2	85.0	29.4	1969.	56.5	13.6	52.0	11.1	1970.*
22	64.4	18.0	72.4	22.4	82.0	31.7	1959.	56.4	13.5	51.0	10.6	1966.*
23	64.5	18.1	72.4	22.4	86.0	30.0	1971.	56.6	13.7	52.0	11.1	1966.
24	64.5	18.1	72.1	22.3	84.0	28.9	1959.	56.9	13.8	53.0	11.7	1966.
25	64.2	17.9	71.6	22.0	84.0	28.9	1969.	56.9	13.8	53.0	11.7	1966.
26	64.2	17.9	71.8	22.1	93.0	28.3	1963.	56.6	13.7	52.0	11.1	1955.
27	64.7	18.1	72.7	22.6	90.0	32.2	1962.	56.6	13.7	40.0	4.4	1972.
28	65.1	18.4	73.1	22.8	87.0	30.6	1965.	57.2	14.0	52.0	11.1	1970.*
29	65.3	18.5	73.4	23.0	102.0	38.9	1968.	57.3	14.0	51.0	10.6	1955.
30	65.1	18.4	73.1	22.8	82.0	27.8	1976.*	57.1	13.9	52.0	11.1	1952.
31	65.1	18.4	73.5	23.0	88.0	31.1	1947.	56.8	13.8	52.0	11.1	1972.
MONTH	64.1	17.8	71.8	22.1	102.0	38.9	1968.	56.4	13.5	40.0	4.4	1972.

NOTES:  
 T = TRACE AMOUNTS (<.01. OR <.5. OR <1.0 INCHES)  
 \* = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LNG. : 122 19W ELEV. : 15 FT  
MONTH : SEP

## MEAN TEMPERATURE | MAXIMUM TEMPERATURE | MINIMUM TEMPERATURE

DAY	AVERAGE			MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE		
	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F
1	65.6	18.7	74.3	23.5	91.0	32.8	1955.	57.0	13.9
2	65.3	18.5	73.6	23.1	91.0	32.8	1950.	57.0	13.9
3	65.8	18.8	74.2	23.4	95.0	35.0	1961.	57.4	14.1
4	66.1	18.9	74.5	23.6	91.0	32.8	1961.	57.6	14.2
5	65.5	18.6	73.3	22.9	85.0	29.4	1974.*	57.6	14.2
6	65.7	18.7	73.9	23.3	88.0	31.1	1979.	57.5	14.2
7	66.3	19.0	74.7	23.7	91.0	32.8	1976.	57.8	14.4
8	66.0	18.9	74.3	23.5	98.0	36.7	1984.*	57.6	14.2
9	65.8	18.8	74.1	23.4	92.0	33.3	1984.	57.5	14.1
10	65.4	18.6	73.4	23.0	91.0	32.8	1979.	57.4	14.1
11	65.6	18.7	73.9	23.3	100.0	37.8	1979.	57.3	14.0
12	65.5	18.6	73.8	23.2	100.0	37.8	1979.	57.3	14.0
13	65.3	18.5	73.2	22.9	102.0	38.9	1971.	57.4	14.1
14	65.8	18.8	74.0	23.3	106.0	41.1	1971.	57.6	14.2
15	65.7	18.7	74.0	23.3	96.0	35.6	1971.	57.5	14.1
16	65.3	18.5	73.1	22.8	97.0	36.1	1968.	57.6	14.2
17	65.4	18.6	73.3	22.9	90.0	22.2	1984.	57.6	14.2
18	65.5	18.6	73.3	22.9	93.0	33.9	1946.*	57.6	14.2
19	66.0	18.9	74.5	23.6	93.0	33.9	1964.*	57.5	14.2
20	65.8	18.8	74.5	23.6	93.0	33.9	1983.	57.0	13.9
21	66.5	19.2	75.8	24.3	90.0	32.2	1947.	57.3	14.1
22	66.3	19.1	75.5	24.2	94.0	24.4	1964.*	57.1	14.0
23	65.6	18.7	74.2	23.5	92.0	33.3	1964.	56.9	13.8
24	66.4	19.1	75.7	24.3	95.0	35.0	1964.	57.1	14.0
25	66.5	19.1	75.4	24.1	92.0	33.3	1968.*	57.6	14.2
26	65.3	18.5	73.2	22.9	92.0	33.3	1970.*	57.4	14.1
27	65.6	18.7	73.6	23.1	92.0	33.3	1966.	57.6	14.2
28	65.9	18.9	74.4	23.6	91.0	32.8	1966.	57.5	14.1
29	65.4	18.6	73.8	23.2	91.0	32.8	1978.	57.0	13.9
30	65.1	18.4	73.8	23.2	92.0	33.3	1980.	56.3	13.5
MONTH	65.7	18.7	74.1	23.4	106.0	41.1	1971.	57.4	14.1

NOTES : MONTHLY MEANS FOR 1945-1986

T = TRACE AMOUNTS (<.01, OR <.5, OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : OCT

MEAN TEMPERATURE DAY	MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE		
	AVERAGE DEG F	DEG C	AVERAGE DEG F	DEG C	EXTREME DEG F	DEG C
1	65.3	18.5	73.8	23.2	95.0	35.0
2	65.2	18.4	73.8	23.2	98.0	36.7
3	65.2	18.5	74.3	23.5	101.0	38.3
4	64.3	18.0	72.7	22.6	90.0	32.2
5	64.2	17.9	72.2	22.4	86.0	30.0
6	64.2	17.9	72.4	22.4	87.0	30.6
7	64.2	17.9	72.6	22.6	88.0	31.1
8	64.5	18.1	72.6	22.6	86.0	30.0
9	63.8	17.6	71.5	22.0	89.0	31.7
10	63.8	17.7	71.5	22.0	85.0	29.4
11	63.8	17.6	71.3	21.8	87.0	30.6
12	64.7	18.2	73.4	23.0	91.0	32.8
13	64.8	18.2	73.5	23.0	90.0	32.0
14	63.4	17.4	71.3	21.6	90.0	32.2
15	63.1	17.3	71.0	21.6	90.0	32.2
16	63.3	17.4	71.4	21.9	88.0	31.1
17	62.7	17.0	70.5	21.4	86.0	30.0
18	61.9	16.6	69.2	20.7	82.0	27.8
19	62.0	16.7	69.3	20.7	84.0	28.9
20	62.2	16.8	69.8	21.0	85.0	29.4
21	62.3	16.9	70.3	21.3	85.0	29.4
22	62.0	16.6	69.6	20.9	85.0	29.4
23	62.2	16.8	69.7	20.9	95.0	29.4
24	63.1	17.3	71.0	21.7	89.0	31.7
25	61.7	16.5	69.1	20.6	84.0	28.9
26	61.5	16.4	68.6	20.4	85.0	29.4
27	61.2	16.2	68.6	20.3	84.0	28.9
28	60.8	16.0	68.4	20.2	73.0	25.6
29	61.4	16.3	69.0	20.5	82.0	27.8
30	61.0	16.1	68.4	20.2	82.0	27.8
31	61.0	16.1	69.3	20.7	90.0	32.2
MONTH	63.1	17.3	71.0	21.7	101.0	38.3

NOTES :  
T = TRAIL AMOUNTS (.01, .02 < .5, 0 < 1.0 INCHES)  
+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
MONTH : NOV

MEAN TEMPERATURE DAY	MAXIMUM TEMPERATURE			MINIMUM TEMPERATURE			EXTREME DATE
	AVERAGE DEG F	DEG C	AVERAGE DEG F	DEG C	EXTREME DEG F	DEG C	
1	60.5	15.8	67.8	19.9	82.0	27.8	1967-*
2	61.2	16.2	69.1	20.6	83.0	28.3	1967-
3	63.5	15.8	67.5	19.7	85.0	29.4	1950-
4	60.7	15.9	68.0	20.0	79.0	26.1	1980-
5	59.9	15.5	66.8	19.4	77.0	25.0	1961-*
6	59.9	15.5	67.0	19.4	76.0	24.4	1985-*
7	59.4	15.2	66.3	19.1	83.0	28.3	1955-
8	59.6	15.4	66.7	19.3	81.0	27.2	1955-
9	58.6	14.8	65.1	18.4	78.0	25.6	1950-
10	58.6	14.8	65.0	18.3	78.0	25.6	1955-
11	57.9	14.4	64.2	17.9	75.0	23.9	1986-*
12	57.4	14.1	63.5	17.5	78.0	25.6	1986-
13	56.6	13.7	62.3	16.9	72.0	22.2	1969-
14	56.2	13.4	61.8	16.6	72.0	22.2	1970-
15	56.1	13.4	61.5	16.4	70.0	21.1	1949-
16	56.3	13.5	62.1	16.7	73.0	22.8	1967-*
17	56.0	13.3	62.4	16.9	72.0	22.7	1956-
18	56.0	13.3	62.2	16.8	72.0	22.2	1971-
19	55.6	13.0	61.7	16.5	70.0	21.1	1949-
20	55.1	12.9	61.3	16.3	71.0	21.7	1959-
21	54.8	12.7	61.1	16.2	71.0	21.7	1957-
22	54.9	12.7	60.7	16.0	75.0	23.9	1959-
23	55.0	12.8	61.2	16.2	73.0	22.8	1959-
24	55.3	12.9	61.6	16.4	75.0	23.9	1959-
25	54.7	12.6	61.2	16.2	77.0	25.0	1975-
26	54.8	12.6	61.3	16.3	74.0	23.3	1959-
27	54.3	12.4	60.3	15.7	72.0	22.2	1969-*
28	54.5	12.5	60.8	16.0	72.0	22.2	1969-
29	53.9	12.2	60.0	15.5	73.0	22.8	1969-
30	54.2	12.3	60.0	15.6	70.0	21.1	1977-
MONTH	56.9	13.9	63.3	17.4	85.0	29.4	1950-
							51.5
							10.3
							38.0
							3.3
							1952.

NOTES :  
 \* = TRACE AMOUNTS (<0.01 OR <0.5 OR < 1.0 INCHES)  
 + = VALUE OCCURRED IN PREVIOUS YEAR(S).  
 THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 29 - DAILY AVERAGE/EXTREME TEMPERATURES

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LON. : 122 19W ELEV. : 15 FT MONTH : DEC

MEAN TEMPERATURE	MAXIMUM TEMPERATURE						MINIMUM TEMPERATURE					
	AVERAGE		EXTRME		DATE		AVERAGE		EXTRME		DATE	
DAY	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C	DEG F	DEG C
1	54.0	12.2	59.7	15.4	71.0	21.7	1959.	48.4	9.1	43.0	6.1	1976.
2	53.7	12.1	59.5	15.3	69.0	20.6	1969.+	48.0	8.9	43.0	6.1	1976.+
3	54.0	12.2	59.8	15.4	72.0	22.2	1958.	48.3	9.3	42.0	5.6	1965.+
4	53.2	11.8	58.6	14.6	70.0	21.1	1959.	47.9	8.8	40.0	4.4	1963.
5	53.0	11.7	58.4	14.6	68.0	20.0	1959.	47.7	8.7	36.0	2.2	1972.
6	52.5	11.4	58.1	14.5	68.0	20.0	1979.	46.8	8.2	39.0	3.9	1972.
7	52.6	11.5	52.5	14.7	67.0	19.4	1979.	46.8	8.2	38.0	3.3	1972.
8	52.2	11.2	58.0	14.4	68.0	20.0	1975.	46.3	7.9	29.0	-1.7	1972.
9	51.8	11.0	57.6	14.2	65.0	18.3	1984.+	46.0	7.8	27.0	-2.8	1972.
10	51.5	10.8	56.9	13.8	68.0	20.0	1958.	46.1	7.8	30.0	-1.1	1972.
11	51.7	10.9	57.4	14.1	71.0	21.7	1958.	46.0	7.8	31.0	-6.6	1972.
12	50.9	10.5	56.6	13.7	72.0	22.2	1958.	45.1	7.3	34.0	1.1	1972.
13	50.6	10.3	56.0	13.3	71.0	21.7	1958.	45.2	7.3	32.0	0.0	1972.
14	50.8	10.4	56.2	13.4	56.0	18.9	1958.	45.4	7.5	32.0	0.0	1972.
15	50.9	10.5	56.0	13.3	66.0	18.9	1980.	45.8	7.7	34.0	1.1	1971.
16	50.9	10.5	56.6	13.7	66.4	18.9	1980.	45.2	7.3	34.0	1.1	1971.
17	51.7	10.9	57.6	14.2	66.0	18.9	1958.+	45.7	7.6	36.0	2.2	1965.
18	51.2	10.6	56.3	13.5	64.0	17.8	1958.	46.0	7.8	37.0	2.8	1971.
19	50.9	10.5	55.8	13.2	64.0	17.8	1950.	46.0	7.8	35.0	1.7	1971.
20	50.3	10.2	55.2	12.9	65.0	18.3	1969.	45.5	7.5	35.0	1.7	1967.
21	50.1	10.1	55.2	12.9	62.0	16.7	1981.+	45.1	7.3	34.0	1.1	1965.
22	50.5	10.3	55.9	13.5	64.0	17.8	1953.	45.1	7.3	37.0	2.8	1978.
23	50.2	10.1	55.4	13.0	64.0	17.8	1946.	45.0	7.2	34.0	1.1	1948.
24	50.7	10.4	55.9	13.3	64.0	17.8	1969.+	45.5	7.5	32.0	0.0	1948.
25	50.6	10.3	55.6	13.1	67.0	19.4	1967.	45.5	7.5	38.0	3.3	1984.+
26	50.2	10.1	55.2	12.9	58.0	20.0	1967.+	45.1	7.3	35.0	1.7	1985.
27	50.1	10.0	55.4	13.0	70.0	21.1	1967.+	44.8	7.1	36.0	2.2	1985.+
28	50.2	10.1	55.7	13.2	73.0	22.8	1967.	44.7	7.1	36.0	2.2	1971.+
29	50.3	10.2	55.6	13.1	64.0	17.8	1967.	44.9	7.2	39.0	3.9	1978.+
30	50.0	10.0	55.5	13.0	64.0	17.8	1966.+	44.5	7.0	36.0	2.2	1978.
31	49.0	9.5	54.6	12.6	65.0	18.3	1958.	43.5	6.4	36.0	2.2	1978.
MONTH	51.3	10.7	56.7	13.7	73.0	22.8	1967.	45.9	7.1	27.0	-2.8	1972.

## NOTES:

T = TRACE AMOUNTS (<0.1, 0.1-0.5, OR < 1.0 INCHES)

+ = VALUE OCCURRED IN PREVIOUS YEAR(S).

THIS SYMBOL OMITTED FOR SNOWFALL AND SNOW DEPTH AMOUNTS = 0.0

## 30 - EXTREME VALUES

MAXIMUM TEMPERATURE (DEG F)  
(FROM DAILY OBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	74	82	69	87	82	81	86	82	79	63	PART
1946	66	65	73	87	80	88	82	88	93	87	68	64	93
1947	60	74	76	92	87	90	80	88	90	86	PART	69	PART
1948	72	70	PART	73	76	89	88	85	82	83	74	62	PART
1949	62	61	70	77	89	100	78	94	83	76	68	68	100
1950	62	67	77	83	91	P4	80	89	91	85	85	66	91
1951	63	68	78	70	91	83	84	82	92	88	75	64	92
1952	61	67	84	91	85	82	83	82	89	90	78	63	90
1953	68	69	78	75	85	92	84	85	90	88	70	70	92
1954	62	76	76	82	87	90	82	94	90	90	71	63	94
1955	63	66	77	69	86	90	76	84	91	82	83	63	91
1956	62	68	71	77	89	89	76	88	88	76	78	68	89
1957	63	68	69	84	83	94	84	85	90	75	71	63	94
1958	68	69	68	83	87	94	76	84	91	87	74	72	91
1959	65	71	80	81	84	86	95	89	83	88	75	71	95
1960	63	67	80	81	72	94	83	81	88	85	74	65	94
1961	63	70	74	84	74	100	92	79	95	90	77	63	100
1962	69	66	70	81	80	90	75	90	84	80	79	65	90
1963	63	72	70	70	77	76	90	84	92	78	69	62	92
1964	64	76	77	84	73	87	89	88	95	86	73	63	95
1965	60	70	76	84	78	83	75	87	86	89	73	60	89
1966	68	64	86	88	80	96	89	84	92	90	82	64	96
1967	66	70	69	80	82	74	83	82	92	89	83	73	92
1968	72	76	80	82	75	85	91	102	97	85	68	60	102
1969	60	65	75	78	83	80	91	85	85	87	81	69	87
1970	65	73	79	77	94	83	101	90	92	89	72	66	101
1971	64	69	72	74	73	95	83	86	106	91	74	60	106
1972	57	63	82	78	90	89	100	80	82	85	67	61	100
1973	61	65	66	77	97	97	91	82	91	80	66	61	97
1974	71	63	70	79	88	P5	88	82	90	88	70	63	90
1975	67	68	70	69	96	P0	89	86	93	81	77	69	96
1976	71	73	75	100	101	81	85	93	87	76	67	67	101
1977	63	74	72	79	76	84	89	82	82	82	70	62	89
1978	62	67	77	79	92	81	83	86	92	90	76	61	92
1979	59	65	72	69	85	89	84	79	100	80	68	68	100
1980	68	68	71	AC	73	89	83	83	92	98	79	66	98
1981	65	74	70	81	91	89	89	83	93	P5	73	63	91
1982	65	70	71	90	86	75	80	93	87	86	76	66	93
1983	62	68	66	71	69	85	93	95	96	84	71	64	96
1984	72	69	77	83	95	P2	91	93	98	80	72	65	98
1985	61	79	75	84	78	89	94	82	85	101	78	65	101
1986	68	76	78	93	80	90	81	77	79	82	78	65	90
MEAN	64.5	69.2	74.5	78.9	83.5	87.2	85.4	85.2	90.4	85.7	74.6	64.9	94.6
S.D.	3.822	4.134	4.675	6.376	7.096	6.285	6.412	5.000	5.232	5.088	4.711	4.553	4.300

30 - EXTREME VALUES

MAXIMUM TEMPERATURE (DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
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YEAR/MONTHS WITH < FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	MAX TEMP	# DAYS
1947											69.	29			
1948													74.	30	

MAX TEMP

# DAYS

## 31 - EXTREME VALUES

MINIMUM TEMPERATURE (DEG. F)  
(FROM DAILY OBS.)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	41	44	49	50	54	53	52	52	43	38	MISS
1946	38	38	41	45	50	51	53	54	52	44	44	40	38
1947	35	42	45	48	51	53	52	54	53	51	PART	40	MISS
1948	40	38	PARI	49	45	54	54	54	51	45	42	32	MISS
1949	30	34	42	46	49	51	50	52	52	44	48	37	30
1950	32	34	42	45	44	50	52	54	50	48	48	43	32
1951	38	38	40	46	50	49	50	53	54	50	43	37	37
1952	34	41	40	47	45	50	54	52	52	51	38	40	34
1953	41	44	38	43	48	52	51	55	54	50	45	42	38
1954	38	42	41	46	50	51	52	52	53	51	42	38	38
1955	38	40	41	43	49	49	52	51	50	50	42	40	38
1956	40	38	39	44	50	52	52	53	55	47	44	38	38
1957	35	38	45	49	52	52	54	54	54	53	45	41	35
1958	41	45	43	44	49	55	54	57	54	53	40	45	40
1959	40	40	46	50	48	52	54	56	55	53	47	41	40
1960	36	44	43	45	47	52	52	53	52	52	43	38	36
1961	34	45	44	44	48	53	54	53	52	48	41	39	34
1962	33	36	43	48	50	53	53	53	53	53	43	39	33
1963	36	49	41	43	48	52	54	52	54	50	44	36	36
1964	40	38	40	44	42	50	51	53	51	50	42	38	38
1965	37	42	44	43	46	49	48	52	52	51	44	34	34
1966	35	38	36	44	48	48	48	51	51	42	42	36	35
1967	38	42	44	38	45	49	51	49	55	51	47	35	35
1968	31	40	49	44	46	51	53	58	53	49	42	35	31
1969	37	43	43	46	45	50	49	52	52	52	42	40	37
1970	40	45	43	44	47	52	50	49	50	49	48	42	40
1971	35	37	40	42	46	49	52	55	54	47	47	34	34
1972	32	37	42	44	48	50	53	54	54	49	47	27	27
1973	40	46	46	48	50	53	51	51	52	52	45	44	40
1974	38	45	44	49	49	51	54	54	54	52	46	42	38
1975	38	44	43	46	51	52	53	51	50	43	40	38	38
1976	39	38	40	40	48	50	54	53	49	42	38	38	38
1977	37	42	43	44	47	49	52	55	54	51	40	44	37
1978	44	44	48	48	46	49	52	52	54	49	41	36	36
1979	38	39	44	46	50	52	54	54	57	52	43	42	38
1980	39	46	45	48	50	52	54	54	56	51	45	41	39
1981	40	44	46	47	50	53	53	54	55	51	47	44	40
1982	38	42	44	43	50	51	54	55	56	53	43	41	38
1983	40	43	47	47	49	54	56	59	59	55	45	44	40
1984	42	44	49	48	52	52	56	57	50	45	38	38	38
1985	40	40	44	48	52	53	55	56	50	41	35	35	35
1986	44	44	44	45	47	52	54	53	52	45	42	42	42

MEAN

36.5

3.111

S.D.

3.261

3.478

2.999

2.565

1.581

2.184

1.642

2.896

2.010

2.425

3.669

## 31 - EXTREME VALUES

MINIMUM TEMPERATURE (DEG F)  
(FROM DAILY OBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

## YEAR/MONTHS WITH &lt; FULL NUMBER OF OBSERVATIONS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL MIN TEMP	# DAYS
1947											39.	29		
1948											41.	30		

MIN TEMP  
# DAYS

## 32 - YEAR/MONTH VALUES

HEATING DEGREE DAYS (BASE .65 DEG. F)  
(FROM DAILY OBS)

023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT.  
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YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	364	187	189	68	40	68	33	71	278	390	MISS
1946	403	401	317	216	175	67	31	83	40	126	317	436	2652
1947	559	308	225	134	79	31	29	15	25	61	MISS	439	MISS
1948	346	384	MISS	267	164	46	46	34	45	89	234	523	MISS
1949	648	473	322	163	142	59	79	50	37	148	170	462	2753
1950	586	358	314	178	185	110	60	40	40	64	143	344	2422
1951	458	347	289	281	136	132	109	82	61	80	241	462	2678
1952	525	348	359	194	127	130	48	69	28	123	271	419	2641
1953	337	284	295	246	154	82	61	35	9	72	236	324	2135
1954	434	306	363	145	139	83	54	99	33	65	249	461	2431
1955	528	352	263	294	138	116	92	112	31	109	272	365	2722
1956	424	381	288	227	128	66	74	48	19	122	205	420	2402
1957	514	309	281	157	114	73	34	35	7	53	237	421	2185
1958	394	237	334	173	82	2	36	7	8	57	203	273	1806
1959	356	318	162	117	125	44	32	23	15	29	173	352	1746
1960	442	280	237	183	120	56	51	75	71	83	275	424	2297
1961	507	243	287	165	167	52	46	14	30	96	258	459	2324
1962	448	362	331	146	166	96	78	34	79	85	188	391	2404
1963	510	178	287	259	148	75	41	70	11	45	276	515	2415
1964	473	330	360	285	265	116	78	34	41	67	284	366	2699
1965	454	344	287	236	213	139	143	57	67	55	197	544	2736
1966	505	404	348	129	217	100	88	85	28	77	242	438	2661
1967	443	251	296	461	237	221	134	78	10	35	134	471	2771
1968	563	259	154	190	250	78	55	6	5	54	272	485	2371
1969	523	362	305	250	168	98	88	27	62	70	175	263	2401
1970	310	214	185	274	153	105	104	141	44	169	222	373	2294
1971	502	414	399	371	228	127	74	25	27	161	253	591	3172
1972	634	420	277	259	158	138	92	96	35	106	282	577	3074
1973	432	274	322	161	169	81	88	126	50	94	287	377	2461
1974	430	321	295	224	223	116	68	53	51	66	246	411	2604
1975	424	319	359	366	193	144	100	73	86	123	285	394	2866
1976	418	335	364	269	173	81	26	14	61	82	182	408	2413
1977	499	275	352	276	232	136	106	51	50	109	226	341	2584
1978	344	294	191	246	115	99	81	48	10	98	322	543	2391
1979	485	366	287	226	118	107	47	41	1	41	231	338	2288
1980	387	228	258	194	204	121	56	86	50	76	195	366	2221
1981	374	225	269	202	137	38	92	41	24	107	156	308	1973
1982	500	259	310	210	164	130	61	26	8	46	272	383	2369
1983	435	243	249	198	132	41	20	0	2	214	315	1839	
1984	356	293	164	198	79	77	32	27	2	104	256	434	2022
1985	474	263	339	154	176	46	56	23	14	87	309	488	2429
1986	330	226	176	183	147	55	53	74	70	90	165	425	1996

## 33 - YEAR/MONTH VALUES

COOLING DEGREE DAYS (BASE 65 DEG F)  
(FROM DAILY OBS)

023232 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	0	10	0	68	15	15	56	9	6	0	MISS
1946	0	0	8	2	14	32	16	72	32	0	0	0	176
1947	0	0	41	13	68	33	58	57	33	MISS	0	0	MISS
1948	0	0	MISS	0	16	24	43	25	23	0	0	0	MISS
1949	0	0	0	19	44	2	14	61	14	0	0	0	154
1950	0	0	1	9	13	10	9	43	63	25	21	0	194
1951	0	0	2	0	16	8	10	7	39	35	0	0	117
1952	0	0	15	3	20	5	18	13	55	20	0	0	149
1953	0	0	0	15	21	10	23	58	33	0	0	0	160
1954	0	0	0	8	4	15	35	20	53	13	0	0	148
1955	0	0	0	0	20	16	0	18	35	12	11	0	112
1956	0	0	0	0	13	36	1	11	53	3	2	0	119
1957	0	0	0	14	4	65	45	25	81	8	0	0	242
1958	0	0	0	11	19	51	9	47	159	38	3	0	337
1959	0	0	5	7	9	29	45	60	51	95	2	0	303
1960	0	0	6	8	7	48	12	11	34	19	0	0	145
1961	0	0	0	16	0	46	69	39	77	45	0	0	292
1962	0	0	0	11	3	26	3	45	19	13	3	0	120
1963	0	0	0	0	3	3	32	14	65	19	0	0	136
1964	0	0	0	3	0	13	27	30	87	32	0	0	192
1965	0	0	0	5	0	4	0	34	22	60	2	0	127
1966	2	0	0	5	29	0	33	11	20	50	34	5	0
1967	0	0	0	0	7	0	11	12	70	61	8	0	169
1968	0	1	6	5	0	20	31	104	111	40	0	0	318
1969	0	0	3	1	3	4	5	55	32	29	4	0	136
1970	0	0	4	0	41	6	40	19	96	13	0	0	219
1971	0	0	0	0	0	0	13	18	128	25	0	0	232
1972	0	0	0	2	0	21	14	49	14	24	22	0	137
1973	0	0	2	11	76	22	4	47	15	0	0	0	177
1974	0	0	2	8	13	30	26	38	49	0	0	0	166
1975	0	0	0	33	3	21	32	36	9	0	0	0	134
1976	0	0	0	26	105	11	55	42	41	2	0	0	282
1977	0	0	1	0	12	26	29	29	14	0	0	0	111
1978	0	4	1	32	2	11	31	98	46	0	0	0	232
1979	0	0	0	23	32	27	30	140	30	0	0	0	282
1980	0	0	4	0	16	37	7	43	51	6	0	0	164
1981	0	0	21	3	94	28	22	25	8	0	0	0	201
1982	0	0	0	9	12	5	13	37	82	50	0	0	208
1983	0	0	0	0	22	30	69	111	167	87	0	0	486
1984	0	0	0	5	42	20	71	41	174	18	0	0	371
1985	0	6	0	20	2	30	47	32	36	4	0	0	222
1986	0	0	7	5	1	22	18	3	2	32	6	0	93

MEAN TEMPERATURE (DEG F)  
(FROM DAILY OBS)

023239 ALAMEDA CA  
PERIOD OF RECORD : 1945-1986

LAT. : 37 47N LONG. : 122 10W ELEV. : 15 FT PAGE : 1

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	53.2	59.0	58.9	65.0	64.1	63.2	65.7	63.0	55.9	52.4	MISS
1946	50.7	50.6	54.7	58.0	59.4	63.2	65.0	62.8	66.0	61.9	54.4	50.9	58.1
1947	46.9	54.0	57.7	61.8	62.8	66.2	65.1	66.3	66.0	64.0	55.1P	50.8	MISS
1948	53.8	51.2	53.5P	56.0	59.7	64.1	64.2	65.2	64.3	62.8	57.1	48.1	MISS
1949	44.0	48.1	54.6	59.5	61.0	64.5	62.5	63.8	65.7	60.6	59.3	50.0	57.8
1950	46.0	52.2	54.9	59.3	59.4	61.6	63.3	65.0	65.7	63.7	60.9	53.9	58.0
1951	50.2	52.6	55.7	55.6	61.1	60.8	61.8	62.5	64.2	63.5	56.9	50.0	57.9
1952	48.0	52.5	53.9	58.6	61.5	60.8	64.0	63.1	65.8	61.6	55.9	51.4	58.1
1953	54.1	54.8	55.4	56.7	60.5	62.9	63.3	64.6	66.6	63.7	57.1	54.5	59.5
1954	51.0	54.0	53.2	60.4	60.6	62.7	64.3	62.4	65.6	63.3	56.6	50.1	58.7
1955	47.9	52.4	56.5	55.1	61.1	61.6	62.0	61.9	63.4	61.8	56.2	53.2	57.8
1956	51.3	51.3	55.7	57.4	61.2	64.0	62.6	63.8	66.1	61.1	58.2	51.4	58.7
1957	48.4	53.9	55.9	60.2	61.4	66.3	65.3	64.6	67.4	63.5	57.0	51.4	59.6
1958	52.2	56.5	54.2	59.5	62.9	66.6	64.1	66.2	70.0	64.3	58.3	56.1	60.9
1959	53.5	53.6	59.9	61.3	61.2	64.5	65.4	66.1	66.1	67.1	59.2	53.6	61.0
1960	50.7	55.0	57.5	59.1	61.1	64.7	63.7	62.9	63.7	62.4	55.8	51.3	59.0
1961	48.6	56.3	55.7	60.0	59.6	64.7	65.7	65.8	66.5	63.3	56.3	50.1	59.4
1962	50.5	52.0	54.3	60.5	59.7	62.6	62.4	65.3	63.0	62.6	58.8	52.3	58.7
1963	48.5	58.6	55.7	56.3	60.3	62.5	64.7	63.1	66.7	64.1	55.7	48.3	58.7
1964	49.7	53.2	53.3	55.5	56.4	61.5	63.3	64.8	66.5	63.8	55.5	53.1	58.0
1965	50.3	52.7	55.7	57.2	58.1	60.5	60.3	64.2	63.5	65.1	58.5	47.4	57.8
1966	48.7	50.5	53.9	61.6	58.0	62.7	62.5	62.9	65.7	63.6	57.0	50.8	58.2
1967	50.7	56.0	55.4	49.6	57.5	57.6	61.0	62.8	67.0	65.8	60.7	49.8	57.8
1968	46.8	55.7	60.2	58.8	56.9	63.0	64.2	66.1	69.5	64.5	55.9	49.3	59.3
1969	48.1	52.0	55.2	56.6	59.0	62.1	62.3	65.9	64.0	63.6	59.2	56.5	58.7
1970	55.0	57.3	59.1	55.8	61.3	61.6	62.9	61.0	66.7	59.9	57.5	52.9	59.2
1971	48.8	50.2	52.1	52.6	57.6	61.1	63.1	65.7	68.3	60.6	56.5	45.9	56.9
1972	44.5	50.0	56.1	56.3	60.5	60.8	63.3	62.3	64.6	62.2	55.5	46.3	56.9
1973	51.0	55.2	54.6	59.6	59.9	64.8	62.8	61.0	64.8	62.4	55.4	52.8	58.7
1974	51.1	53.5	55.4	57.5	58.0	61.5	63.7	64.1	64.5	64.4	56.7	51.7	58.5
1975	51.3	53.6	53.4	52.7	59.8	60.2	62.4	63.6	63.3	61.3	55.5	52.2	57.4
1976	51.5	53.0	53.2	56.0	60.2	65.7	64.5	66.3	64.3	63.6	59.5	51.8	59.1
1977	48.9	55.1	53.6	58.0	57.5	60.8	62.4	64.2	64.2	61.9	57.4	54.0	58.2
1978	53.9	54.5	58.9	56.8	62.5	61.7	62.7	64.4	67.9	63.3	54.2	47.4	59.0
1979	49.3	51.9	55.7	57.4	61.9	62.5	64.3	64.6	69.6	64.6	57.2	54.0	59.4
1980	52.5	56.8	56.6	58.6	58.4	61.5	64.3	62.4	64.7	64.1	58.6	53.1	59.3
1981	52.9	56.9	56.3	58.9	60.6	66.8	62.9	64.3	65.0	61.8	59.7	55.0	60.1
1982	48.8	55.7	55.0	58.2	60.5	60.8	63.4	65.3	67.4	65.1	55.9	52.6	59.0
1983	50.9	56.3	56.9	58.7	61.4	64.6	66.5	68.5	70.5	67.7	57.8	54.8	61.2
1984	53.5	54.5	59.7	58.5	63.8	63.3	66.2	65.4	70.7	62.2	56.4	51.0	60.4
1985	49.7	55.8	54.0	60.5	59.3	64.4	64.7	65.7	63.6	64.8	49.2	58.9	59.1
1986	54.3	56.8	59.3	59.0	60.2	63.9	63.8	62.7	62.7	59.7	51.2	51.2	59.7

## 35 - YEAR/MONTH VALUES

TOTAL PRECIPITATION (INCHES)  
(FROM DAILY OBS)023239 ALAMEDA, CA  
PERIOD OF RECORD : 1945-1986LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT  
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YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1945	MISS	MISS	3.42	MISS	.78	MISS	MISS	MISS	MISS	1.11	MISS	10.55	MISS
1946	1.67	1.52	1.67	.02	.41	.00	.00	.00	.00	.12	2.16	2.01	MISS
1947	1.07P	1.29P	3.13	.05	.60	.54	.00	.00	.00	2.59P	.51P	.80	MISS
1948	.69	1.22P	2.16P	2.00P	.81P	.02	.00	.00	.01	.22P	.59P	.60	MISS
1949	1.48	2.25	3.92	.00	.60	.00	.46	.00	.00	.26	.89	2.25	12.17
1950	6.39	1.44	2.14	.85	.56	.00	.00	.00	.00	2.17	3.93	5.29	22.77
1951	3.60	2.53	1.19	.65	.82	.70	.00	.19	.00	.88	3.73	5.84	19.43
1952	5.64P	1.15	3.37	.62	.16	.31	.00	.00	.00	.07	1.62	11.06	MISS
1953	2.80	.00	1.31	2.67	.17	.43	.00	.11	.00	.18	2.04	.18	9.89
1954	3.16	1.62	3.33	.97	.13	.05	.02	.03	.00	.08	1.89	4.80	16.08
1955	3.35	1.29	.36	1.02	.09	.00	.01	.00	.00	.08	1.38	10.30	17.88
1956	7.27	1.93	.00	1.66	.68	.02	.00	.00	.18	1.44	.66	.18	13.44
1957	2.48	3.41	2.18	1.34	3.41	.06	.00	.00	1.16	2.86	.59	2.95	20.44
1958	4.57	6.69	7.67	4.20	.22	.07	.00	.00	.00	.05	.06	1.19	24.80
1959	4.18	3.67	.23	.26	.01	.00	.00	.02	2.58	.00	.00	1.77	12.72
1960	3.62	3.25	2.01	.70	.55	.00	.00	.00	.00	.40	.76	.72	14.01
1961	2.67	1.03	2.57	.70	.67	.00	.00	.02	.30	.04	3.69	1.98	13.67
1962	.88	5.66	2.13	.37	.00	.00	.00	.09	.24	8.18	.56	2.77	20.88
1963	2.95	2.08	3.18	4.01	.38	.00	.00	.02	.00	1.30	3.03	.55	17.59
1964	3.07	.12	1.95	.02	.15	.51	.00	.01	.00	1.30	4.32	4.43	16.08
1965	3.08	.85	1.80	2.75	.00	.00	.00	.03	.00	.11	3.98	2.94	15.54
1966	3.48	2.82	.66	.33	.11	.06	.09	.11	.10	.00	3.95	2.96	14.37
1967	8.35	.31	3.84	5.45	.07	1.19	.00	.01	.02	.41	.96	1.75	22.36
1968	3.83	1.91	2.54	.37	.12	.00	.00	.10	.01	.57	2.38	3.11	14.94
1969	7.99	7.18	.77	1.66	.00	.02	.00	.00	.04	2.09	.69	4.54	24.98
1970	6.40	1.52	1.08	.78	.03	.73	.00	.00	.00	1.10	5.00	4.89	21.63
1971	1.51	.38	2.43	.65	.09	.00	.00	.00	.20	.08	1.46	3.27	10.09
1972	.89	1.24	.15	.92	.00	.23	.00	.00	.61	4.42	4.99	2.55	16.20
1973	8.42	5.51	2.55	.01	.08	.00	.00	.00	.36	1.18	7.86	3.31	29.28
1974	2.88	1.70	3.90	.00	.06	.75	.00	.00	.86	.48	2.31	15.24	
1975	1.94	2.80	5.43	1.44	.00	.03	.15	.04	.00	2.77	.27	.42	15.29
1976	.26	.64	1.16	.72	.00	.01	.01	.88	.41	.37	1.02	1.13	6.61
1977	1.37	.67	1.95	.06	.62	.00	.00	.01	.68	.19	1.98	3.25	10.98
1978	6.92	4.00	5.01	3.09	.00	.00	.00	.01	.23	.00	1.77	2.45	21.05
1979	6.23	4.96	1.96	.93	.08	.00	.52	.00	.00	1.77	2.97	3.87	23.22
1980	3.55	6.18	3.33	1.14	.20	.00	.13	.00	.00	.09	.16	1.93	14.71
1981	5.24	1.57	3.85	.18	.21	.00	.00	.00	.05	1.65	5.53	4.29	22.52
1982	9.04	3.11	6.69	3.03	.00	.10	.01	.84	2.69	5.07	2.85	33.44	
1983	5.16	7.10	8.04	2.72	.38	.00	.00	.01	1.07	.28	4.63	6.08	35.47
1984	.41	1.90	1.27	.64	.01	.18	.00	.14	.03	2.39	5.48	1.66	13.81
1985	.52	1.64	2.71	.12	.01	.14	.06	.04	.35	.81	4.68	2.02	13.10
1986	3.33P	6.29	4.77	.56	.10	.01	.00	.09	.01	.09	.12	1.38	MISS

36 - WEATHER CONDITIONS

ATMOSPHERIC PHENOMENON  
(FROM DAILY OBSERVATIONS)

0023239 ALAMEDA CA  
PERIOD OF RECORD : 1945-1986

MONTH	HOURS (LST)	FREEZE			RAIN			SNOW			FOG			SMOKE			BLLOWING			DUST			TOTAL	
		E/DRIZZLE	RAIN & E/DRIZZLE	FREEZE	E/DRIZZLE	RAIN & E/DRIZZLE	FREEZE	SLEET	OBS WITH PRECIP	HAIL	OBS WITH PRECIP	HAZIE	E/DRIZZLE	SNOW	E/DRIZZLE	SAND	W/OBST	SAND	VISION	W/OBST	SAND	VISION	NO. OF OBS.	NO. OF OBS.
JAN	DAILY	1.4	40.7	0	0	0	0	0	0	0	0	0	45.8	57.5	0	0	0	0	0	0	0	0	1064	1064
FEB	DAILY	1.7	40.5	0	0	0	0	0	0	0	0	0	36.6	47.4	0	0	0	0	0	0	0	0	56.5	56.5
MAR	DAILY	4.6	40.6	0	0	0	0	0	0	0	0	0	40.6	17.0	30.0	0	0	0	0	0	0	0	38.0	1087
APR	DAILY	1.6	29.1	0	0	0	0	0	0	0	0	0	29.1	9.8	27.0	0	0	0	0	0	0	0	30.8	1050
MAY	DAILY	0.5	22.4	0	0	0	0	0	0	0	0	0	22.4	11.8	29.1	0	0	0	0	0	0	0	34.4	1085
JUN	DAILY	0.3	18.2	0	0	0	0	0	0	0	0	0	18.2	12.5	26.7	0	0	0	0	0	0	0	34.0	1050
JUL	DAILY	0.5	20.7	0	0	0	0	0	0	0	0	0	20.7	23.7	39.1	0	0	0	0	0	0	0	50.4	1094
AUG	DAILY	0.7	25.0	0	0	0	0	0	0	0	0	0	25.0	23.6	39.8	0	0	0	0	0	0	0	50.9	1103
SEP	DAILY	0.4	17.4	0	0	0	0	0	0	0	0	0	17.4	21.2	49.0	0	0	0	0	0	0	0	55.9	1065
OCT	DAILY	0.5	22.7	0	0	0	0	0	0	0	0	0	22.7	29.4	57.5	0	0	0	0	0	0	0	64.7	1107
NOV	DAILY	0.4	32.2	0	0	0	0	0	0	0	0	0	32.2	39.7	59.9	0	0	0	0	0	0	0	68.9	1062
DEC	DAILY	1.1	39.2	0	0	0	0	0	0	0	0	0	39.2	48.8	58.2	0	0	0	0	0	0	0	73.1	1118
ANN	DAILY	0.8	29.0	0	0	0	0	0	0	0	0	0	29.0	26.7	43.5	0	0	0	0	0	0	0	52.3	12843

NOTES - \* = PERCENT < .05

23239 ALAMEDA, CA  
PERIOD OF RECORD (HOURLY): 1955-10-86

37 - STATION CLIMATIC SUMMARY  
PERIOD OF RECORD (DAILY): 1945-1986

LAT. : 37 47N LONG. : 122 19W ELEV. : 15 FT

	TEMPERATURE (DEG F) MEANS MAXMIN MINAVG MAXIMIN MEAN	PRECIPITATION (INCHES) PRECIP. 124H MAX MIN MEAN	REL HUMIDITY ISNOWFALL 124H MAXIMIN MEAN	PR (WIND IPT.) 124H MAX MIN MEAN	(KTS) ALT. (LST) IN.(F) 041 131HG.	PR (WIND IPT.) 124H MAX MIN MEAN	(KTS) ALT. (LST) IN.(F) 041 101.5)	MEAN NO. OF DAYS WITH (E) ISKY (PRECIP., ISNOW- FT. (FOG) (MAXIMIN CVR INCHES. IFALL (")) WITH IDIRISPDGSTI + .01,.50,.10,.1.5)
JAN	55 44	50 72	30 .4 9.0	.3 5.3	T T 83 70	.27 4.2	40 NNN	7 52 OVR
FEB	59 47	54 79	34 .3 7.2	.7 1.8	T T 79	.30 4.4	40 N	8 59 OVR
MAR	62 48	55 86	36 .3 6.0	.7 1.7	T T 79	.30 4.4	40 N	10 50 OVR
APR	65 50	58 92	38 .1 5.5	.7 1.8	T 0 79	.57 .31	30 N	10 46 SCT
MAY	67 52	60 100	42 .1 2.4	.1 1.4	0 0 81	.56 .34	25 N	11 41 CLR
JUN	70 54	63 101	48 .1 1.0	.1 1.2	0 0 84	.57 .38	25 N	11 41 CLR
JUL	71 55	63 101	48 .1 .8	.1 .8	0 0 86	.59 .41	20 N	10 35 CLR
AUG	71 56	64 102	40 .1 .9	.1 .3	0 0 87	.60 .42	20 N	9 35 CLR
SEP	74 57	66 106	50 .1 2.6	.1 2.5	0 0 84	.55 .42	25 N	9 42 CLR
OCT	70 55	63 101	44 .1 8.2	.1 3.5	0 0 81	.55 .38	25 N	8 48 CLR
NOV	63 50	57 85	38 .2 7.9	.1 2.7	0 1 80	.62 .32	30 N	7 .53 OVR
DEC	56 45	51 73	27 .3 11.1	.2 3.7	1 1 83	.66 .28	35 NNN	7 .62 OVR
ANN	65 51	59 106	27 1.8 35.5	6.6 5.3	1 1 82	.60 .34	35 N	9 .62 CLR
POR	42 42	42 42	42 42	42 42	32 32	32 32	32 32	32 32

NOTES :

T = TRACE AMOUNTS ( < .05, < .5 INCHES)

# = MEAN NO. DAYS (< .5 DAYS)

\$ = PRESSURE ALTITUDE IN TENS OF FEET (I.E., 50 = 500 FEET)

a = NAVY STATIONS REPORTED HAIL AS SNOWFALL

NWS STATIONS REPORTED HAIL AS SNOWFALL FOR THE PERIOD JULY 1948-DECEMBER 1955.

\* = THE PREDOMINANT SKY CONDITION

\*\* = VISIBILITY IS NOT CONSIDERED

c = ANNUAL TOTALS MAY DIFFER FROM THE SUM OF THE MONTHLY VALUES BECAUSE OF ROUNDING

d = 24 HOUR MAXIMUM PRECIPITATION AND SNOWFALL ARE DAILY TOTAL VALUES (MID-NIGHT TO MID-NIGHT TOTALS).